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The Science Shop for Biology

Report 50

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RuG

Sustainable Development and Women's Health

Implementation of the Cairo ICPD Programme of Action in the Netherlands

Maureen E. Butter (ed.)

NGO Country Report for Cairo+5

WECF

Women in Europe for a Common Future

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Prologue

Five Years After Cairo

General Introduction

This NGO country report is about the state of affairs in the Netherlands. Yet, it has a wider scope as an example of a rich and well-developed country. Many issues covered here find their counterpart in the US, Canada, Germany, France, and other countries with similar problems. The background information included in this report is of international significance as well.
A second point of interest is that this report presents an integrated approach to population, health, gender and environmental issues. Which is a course agreed upon in Cairo, but seems to have been abandoned in Cairo+5.
Central to this integrated approach is the concept of *reproductive heath,* which is a key concept both to population and environmental issues and inextricably linked to women's position and opportunities. The most vulnerable stage in life history is prenatal development, including the germ cell stage, and infancy. Since reproductive health includes reproductive rights and sexual health, there is a link to all social issues relevant to this topic. It is easy to see, that parents, and more specifically mothers, are at least as important to future generations as youth. But although maternal health and mortality are points of concern, policy documents rarely incorporate a mothers' perspective.

Sustainable Development

In 1987 UN's World Commission on Environment and Development published 'Our Common Future', advocating a different kind of economic growth with a shift in emphasis from material needs and consumption to the satisfaction of immaterial needs. WCED coined the term 'sustainable development' as a means to pacify seemingly conflicting demands on behalf of the environment with the needs for economic development in the Southern part of the world.

> ***Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.*** [1]

In 1992 UNCED issued Agenda 21, an integrated approach to economic, social and environmental development[2]. Roughly speaking, Agenda 21 advocates population control and poverty eradication in the South and reducing consumption in the North. Women in the South are perceived as a target group for poverty eradication (the *victims* of unsustainable development*)* and women in the North as a target group for consumption control (the *saviors* of the environment, or even worse, *consumers*). Yet, Agenda 21 admitted the failure of former population control policies, which not only often violated the rights of women, but were not really effective at all, as long as women had few options other than bearing and raising children. Like other UN-documents, Agenda 21 advocated population control by promoting women's rights and opportunities, closing the gender gap in education and income.

The Cairo International Conference on Population and Development

Population issues, including fertility, mortality, gender equality and health, were covered on the United Nations International Conference on Population and Development (ICPD) in Cairo, 1994. The ICPD stresses the interdependence of demographic, social, economic and environmental developments and the ICPD Programme of Action (POA) advocates an integrated approach in a framework of gender equity (which, in general means less than gender equality!!) and sustainable development. Women’s rights, education, economic and

social opportunities are acknowledged as key factors in demographic development, health and reproductive health. Five years after ICPD, it is time to evaluate the implementation and perhaps reconsider courses of action and priorities.

Five years later: integrated approach abandoned

The Cairo+5 evaluation involves a series of preparatory and regional meetings, culminating in the General Assembly in New York, in June 1999 (for details: see Section 3, this report). Right from the start of this assessment process, it became clear that ICPD+5 was only about population and the formerly agreed integrated approach with economic development and environmental management was set aside. One important international women's network, WEDO (Women's Environment and Development Organization) started to organize international NGO input under the heading: 'Where is the 'D' from ICPD?'

WEDO's preliminary consultations revealed that the global economic crisis in many countries had compromised ICPD's ambitions and had incurred severe social costs, both to women's health and to the environment. The environmental perspective to health and reproductive health was missing too. So WEDO prepared a series of country reports in all regions, with emphasis on macroeconomic and environmental links to health and reproductive health. In the Netherlands, WECF, Women in Europe for a Common Future, and member of the post-Cairo task group (see Section 1) was asked to compose an NGO country report as a part of WEDO's project. WECF employed the Science Shop of Biology to do the research, which resulted in the document presented in Section 1. It was used in the regional meeting in Budapest, for results see Section 3. Section 2 gives very interesting background information on issues of sustainable development, gender and health, some of which has not been published before.

Women upgrade current concepts of sustainability

Sustainable development should not be confined to physical environmental quality, but include social and economic trends as well. This country report addresses some issues concerning ethnic minorities, migrants and sexual health of adolescents. It also provides ample information of serious threats to reproductive health from environmental degradation. But the central message of this report is, that sustainable development is about the ***quality of life***, both in its material and immaterial dimensions. As to this point, it appears that Dutch women's NGOs pursue a real innovative course which in itself can figure as an example of 'best practices', of a really integrated approach to both social and environmental quality. Unfortunately, it looks like environmental, let alone sustainability aspects to population issues, are not going to figure significantly in the final Cairo+5 negotiations. The conclusions from the Budapest meeting (see Section 3 of this report), which were the most advanced compared to the other regional meetings, leave no room for overly optimistic expectations. We hope that this report may serve as an eye-opener to all parties concerned and be of use in future meetings covering health, gender and sustainable development.

Future generations are physically present here and now

Reproductive health is a core issue both to population and to sustainable development policies. As to population and family planning issues, it has repeatedly been stated that high perinatal mortality, maternal mortality and morbidity provide major disincentives to any policy aimed at reducing birth rates. As to sustainable development, we should keep in mind that all future generations are physically present in the germ cells of men, women and children of today[3]. The germ cells, prenatal development and infancy represent the most vulnerable stage in life history. At a population level, any factor affecting this weakest link in the chain of

propagation, might result in major long term effects in public health, for generations yet unborn.

Diffuse pollutants threaten reproductive health

There is a mount of evidence from animal populations that widespread diffuse environmental pollutants affecting reproductive quality can and do result in severe population reductions. When Rachel Carson's famous eye-opener to the disastrous effects of DDT, 'Silent Spring' was published in 1964, the world had only to deal with only one substance, an end product, which was comparatively easy to regulate. Nowadays there are tens of thousands of persistent pollutants, end products, raw materials and waste-related substances, many of which appear to have, just like DDT and its derivatives, a pseudo-hormonal effect, that is they mimic certain regulatory substances from the body itself, thereby disturbing normal physiological regulation. Section 2 of this report gives valuable information on reprotoxic effects of PCBs and dioxins. Just keep in mind that PCBs and dioxins have been thoroughly investigated as *model substances* for a host of ill-defined pollutants of unknown origin with similar working. So, if PCB-content in fish oils seems to be decreasing lately, it might be due to efforts set in motion decades ago to reduce river water loads ultimately released in the North Sea and accumulating in fish. But how and when will the hundreds of thousands other chemicals resulting from human activities be screened and regulated. And how, in the meantime, will they affect future generations?

Advanced environmental and health standards and yet....

Much of the information collected in Section 2 is also relevant to other rich industrial countries. The Netherlands can take pride in an advanced environmental policy and strict standards for public health risks. Yet citizens who suffer health problems by environmental causes have to go a very long way to prove their point. A case from the Monitoring Network for Health and Environment, also in Section 2, may serve as an illustration. Overt ecological disasters threatening public health are relatively rare, but subtle risks and chronic, hard to diagnose health effects due to stress and environmental stress abound. Even if environmental exposition to a whole array of pollutants does result in a well defined syndrome as breast cancer, environmental causes are hard to discern from lifestyle factors, so appropriate measures can be held up for years of intellectually stimulating scientific disputes. You will find information on breast cancer and actions from environmental NGO's in Section 2 as well.

The social dimension: inextricably linked to women's issues

So far, I have discussed only the physical part of reproductive health and environmental health risks. But it goes without saying that social and behavioral conditions are as important. One aspect, covered at length by some NGO's, concerns sexual health, including sexual violence and reproductive rights. It is clear that gender equality and topics as male behavior and males' sense of reproductive and sexual responsibility are core issues in these matters. Again, a complacent attitude in the Netherlands and comparable countries is inappropriate. Like environmental risks, gender inequality is not too overt. Gender equality is politically correct, every party will underscore the principle. But in practice it is virtually a non-issue and the huge differences in income and labor participation are conveniently explained away as a result of individual choice and parental aspirations. Environmental policy is perceived as a gender-neutral issue, pursued with a happy unawareness of gender differences in impact. My own contribution to Section 2 provides some insights of gender dilemmas in sustainable development. It seems a good idea, and to women's organizations a most welcome idea at that, to broaden the current notion of sustainable development to social sustainability. A

more modest aspiration, however, could be to adopt a gender perspective in environmental policy and to advocate joint forces of women's' and environmental NGOs.

A mothers' perspective is crucial to reproductive health

Since Agenda 21, it seems a politically correct practice to specially emphasize the position of young people and to encourage political participation of this group. In this way, policymakers acknowledge future generations in the persons of young representatives. Relevant as this practice may be, it should be reminded that before growing up to adolescence, a child is dependent on parental care. Especially in early childhood, health is intricately connected to the mother's condition and the parents' capacity to provide for and to take care of the child. Those who carry the lion's share of parental responsibilities deserve a voice in the political arena and their needs should be acknowledged. The more so, because parental responsibilities lead to under-representation of mothers in social and political participation. Quality of the home environment and safety, including food safety, are typically mothers' issues. Due to bureaucratic compartmentalization, product safety is viewed as consumers' topic, social safety as a police task, food safety as agriculture and public health, and traffic safety resorts to yet another authority. But to individuals who happen to live there, it is all environment. At present women's organizations in the Netherlands advocate a 'quality of life' approach, which is most promising, both for promoting women's interests, including reproductive health and for environmental quality

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[1] WCED, Our Common Future. Oxford University Press, Oxford, 1987.

[2] UNCED, Agenda 21, United Nations Conference on environment and development, Rio de Janeiro 3-4 June, 1992.

[3] Bertell, R., No immediate danger. In:T. Lynggard and .M. Moberg (eds.)A Report from Women's Forum in Bergen, Norway. Center for information on women and development, Oslo, 1990.

SECTION ONE

COUNTRY REPORT AND NGO-DIRECTORY

SUSTAINABLE DEVELOPMENT AND WOMEN'S HEALTH. NGO-COUNTRY REPORT FOR THE NETHERLANDS

MAUREEN E. BUTTER

Sustainable Development and Women's Health

Current notions of sustainable development in the Netherlands are confined to physical regulation of the environment, incorporating a social perspective only insofar as it serves to enforce physical targets. Environmental policy is conceived as a gender-neutral issue, equally affecting men, women and children. Women's unpaid work at home is barely considered. So measures to restrict automobile traffic, for example, add to already overburdened schedules of mothers who have to take children to school, to care for their family and for elderly relatives, as well as to comply with job responsibilities.
While the environmental movement keeps its indifference towards women, an increasing number of women's organizations are taking on the environment, making development sustainable for women too. The women's movement has begun to pose some important questions: Whose common future are we talking about? What values will replace unsustainable consumption, as long as the value of unpaid responsibilities and services carried by women is consistently overlooked in economic and environmental policies?
Reproductive health is in danger, both from environmental and social causes. The omnipresence of diffuse pollutants is a hard to control threat to public health. It is suspect as a contributing cause to many types of cancer related to the reproductive system, and has been proved to cause subtle abnormalities in about 10% of the newborns. But social processes, culminating in postponed motherhood, as well as growing gaps in accessibility of health services all affect health and reproductive health, with different impacts according to age, gender, income, and ethnicity.

1 Introduction

In 1994 an NGO task group 'Population and Development: post Cairo' was formed by the NCDO, the National Committee for International cooperation and sustainable development. The purpose of the task group was to follow the implementation of the ICPD Programme of Action and to stimulate public debate in the Netherlands about the issues on population and development. The latter was achieved by preparing expert discussion papers on several issues pertaining to the ICPD and organizing public debates with NGO's and representatives of public authorities and service centers around these papers.

Regrettably, the participation of environmental organizations in the task group was minimal. Neither health nor women's issues figure prominently on the priority list of the national environmentalists. Social differences like race, class and gender links to environmental quality, risk and behavior are virtually non-issues in environmental policy as well in the environmental NGO-programs. Women's organizations, on the other hand, show a growing concern for environmental matters. One interesting development is the evaluation of environmental plans by means of an Emancipation Effect Assessment. This far, three Emancipation Effect Assessments have been published: one about green taxation and two about physical planning (13, 28, 29).

In addition to the reports of the NGO task group, the author consulted as many NGO's and public representatives with activities touching upon the ICPD-issues as possible. Also background information in the form of articles, policy documents, press releases and scientific publications was collected in order to chart the environmental links. The author is indebted to a great many informants and trusts that this report gives a fairly good impression of what is going on in the Netherlands.

2 Macro-economic links to women's health

Due to an ever-increasing demand for health services, the tendency is, to establish market mechanisms and to privatize as many public services as possible. This is, however but a small part of a general picture of a retreating government, cutting back on expenses. The results of this ongoing restructuring process are sometimes unsatisfactory in terms of equity in general and equity in public health specifically.

- The poor face increasing financial thresholds to health care (21). Up to 40% of the elderly, most of them women, suffer a substantial decline in purchasing power over the last fifteen years, primarily as a result from government policy (43). Eighty percent of the home care centers have introduced priority lists and limited access to care (12).
- Cuts in expenditure on women's health organizations endanger the effort to cure structural inequalities: 'mainstreaming' to a certain extent becomes a synonym for 'cut back' (pers. comm. Ellen Verheul, WEMOS & Platform Women and Health). In order to prevent female circumcision among new immigrants from Somalia, a low budget network of established Somalians was formed to provide social support to the newly arrived. This proved to be very effective in many respects. But the project had to be discontinued by lack of structural finance (pers. comm. Alem Desta, VON, Netherlands Refugee Organisations, information confirmed by Gerda Nienhuis from Pharos).
- There are substantial differences in health as well as reproductive health, which are related to social economic position (26,35). Paramount are the differences between non-whites and whites, for instance in infant, child and maternal mortality (2,3). For a part the latter are due to events previous to immigration, unhealthy lifestyles and under-utilization of available health services, but the quality of residential environment exert an influence as well (2, 26, 35).
- Reproductive health services and contraception in the Netherlands, on the other hand, are widely available, resulting in very low abortion and teenage pregnancy rates. Perinatal care and child health care in the Netherlands are of a very high quality and accessible to all but the unregistered immigrants. The latter are entitled to mere medical emergency (2, 3).
- Chlamydia is the number one STD in the Netherlands. Many carriers of the infection are not aware of it. In women it can cause inflammation of the fallopian tubes, resulting in diminished fertility. NGO's engage in new partnerships with companies in order to promote the use of condoms by adolescents, a group at risk because of multiple sexual encounters (21). But most women use the pill for anticonception, as it is taken for granted that this is the most reliable method to prevent pregnancy. There is reason to doubt if this is a free and well-informed choice. Most physicians routinely prescribe the pill, which is reimbursed by the insurance. Condoms are not reimbursed and thus pose a financial barrier to adolescents (18, 19, 36).

Cross connections between economic order and health are numerous. Tight time schedules yield stress. Postponed motherhood is a result of educational and career demands constraining reproduction opportunities. While in itself perhaps not undesirable, it incurs a risk of unwanted infertility, either of the woman or the male. According to a patients' association for fertility problems, one out of six Dutch citizens will have to cope with one or other form of unintentional childlessness and up to 10% of the couples will remain so, despite fertility treatments (16).

3 Environmental links to women's health

The environment is not a gender-neutral issue, as it has different impacts on men, women and children. This applies both to environmental effects as well as to the consequences of environmental policy. Apart from health, major topics are the logistics of paid and unpaid responsibilities, employment and income, sustainable lifestyles and the quality of human relations (6, 7). It is the women's movement that poses the question *whose* common future we are talking about and *what* immaterial values are to replace unsustainable consumption, since unpaid work and responsibilities tend to be overlooked in all kinds of economic, spatial and environmental policies.

Sustainable development, for whom?

Environmental problems, difficult as they are, must not obscure the very serious structural problem of a general lack of awareness of gender issues in sustainable development. The chosen pathway to sustainability can gravely affect the life and position of women far beyond, say, the impact of green taxation on single parent households and women over 65. Redistribution of unpaid work and child care services lag behind women's growing participation in paid labor, resulting in the well-known double burden. The indispensability and the logistic demands of unpaid activities like care and sustaining kin and family relations are underestimated as well as undervalued. Measures to restrict so called 'consumptive' traffic directly affect already overburdened time schedules of parents, children and grandchildren, supporting the current trend of substituting informal care for professional services (6, 7, 8).

> Traffic (pollution, congestion and safety) is a major problem in a heavily urbanized country like the Netherlands. All policies to reduce car use are designed to spare the holy cow of business traffic and to discourage private car use. All private car use, even if it involves informal care for and maintaining social contact with non-residential kin, is registered as 'social-recreational car use', a kind of environmental waste, which is to be taxed out of the market. The same counts for transport of children, to and from school, swimming pool, clubs etcetera, which are often just as necessary as business traffic (6).

Green taxation is a long-term operation, aiming at a transformation of a ‘commodity-oriented’ economy to a ‘service-oriented’ economy with supposedly positive employment effects for women. Actual proposals, however, are restricted to raising the consumer price of house fuel, electricity and gasoline. Taxes on house fuel and electricity will have a stronger impact on those, who spend most of their time at home, the sick, the unemployed, the elderly, the very young and their caregivers. (6, 28).

A second objection to green taxation in its present form may be that substitution of direct taxes on paid labor by indirect taxes on expenses, erodes the base of income redistribution between paid and unpaid labor. As long as gender equality has not been realized, this is a point of concern (8).

If sustainable development is to promote immaterial values over material ones, this is definitely the wrong course of action. A true policy of sustainable development should take the whole scale of human activities into account. The input of women's organizations for this process is indispensable.

Diffuse pollution, cancer and reproductive health

As for health and reproductive health, environmentalists are very concerned about xenoestrogens, by occupational exposition or at home, in food, water, soil and air (14, 23, 40, 46). Male infertility, cancer of male reproductive organs, as well as breast and cervical cancers are rising (16, 20, 23, 47). In a petition offered to the Dutch parliament by joint NGO's in November 1997, it is pointed out that since 1960:

- Children's cancer has doubled,
- Testis cancer has increased by 50%. This increase is particularly accentuated in men between 15-19 years of age
- Prostate cancer has suffered a three to fourfold increase, also in young men
- Breast cancer has doubled in all age groups and is now the main cause of mortality for women between 40-55 of age. One out of ten Dutch women will get breast cancer (47)

Although both sexes suffer, fertility problems bear heavier on women, since they often resort to invasive treatments like IVF as a response to both male and female fertility problems. But breastfeeding is also in danger, due to contamination of human milk with PCB's and dioxins. Even worse are the dangers of prenatal exposure to PCBs and dioxins. Exposure before and after birth has given rise to subtle abnormalities of approximately 10% of the newborns in the Netherlands, such as disturbed cognitive and delayed motor development (24). Age of the mother is an extra risk factor, since xenoestrogens accumulate in human tissues and are mobilized during pregnancy and breastfeeding (1, 12, 11, 20, 46). Levels of PCB's and dioxins in human milk are falling somewhat lately, due to a decline of these compounds in foodstuffs (25). But it should be kept in mind, that there are many other diffuse pollutants with similar effects as PCBs an dioxins, which are neither measured nor studied.

Occupational exposure

European law regulates occupational reproductive health hazards to the extent that pregnant women and men who intend to become father are entitled transfer to work not involving exposure to reprotoxic substances. A man may consequently suffer social embarrassment, if he doesn't get his wife pregnant in due time (pers. comm. Dr. Anne Stijkel[1]). Other objections to these regulations are, that the list of reprotoxic substances is all too short (only few of the 100.000 substances have been screened for reprotoxicity) and neglect of the exposition prior in life (17, 41, 42, pers. comm. Anne Stijkel).

Home and the home environment

Home and the home environment have a greater impact on women, the very young, the elderly and the diseased. Regulations exist for the building of new houses and for building materials, but not for existing houses. Furniture and upholstery might be a source of toxic emissions, but there are no safety standards for this. Many houses suffer from dampness, due to overisolation to economize on the rising heating costs. This results in health risks due to allergens from moulds and house dust mites (39). Lead from waterworks in old urban quarters is harmful for babies on formula food. For decades infants have been exposed to dangerous concentrations in drinking water. Only recently (1997) the Health Council advised the government to lower the effective standard for lead in drinking water from 50 to 10 micrograms/l and to replace all lead piping as soon as possible (4).

Safety from traffic is a major concern. Although child mortality by road incidents has been steadily declining, this is not to be accredited to a safer environment. Not the street, but the parents have been changed, by heavily protecting their offspring, thus confining them to indoor environments. Not only has this adverse effects on motor and social development, but it contributes to an impersonal anonymous neighborhood, deprived of informal arrangements and social ties (37, 33, 45). In the country, children suffer from traffic hazards because automobilists tend to drive faster. Safe footpaths and bicycle routes to schools and other children's destinations are a long-standing wish of Dutch women's organizations (6, 45).

Persistent problems: air pollution and noise

The Monitoring Network for Health and Environment registers by far the most frequent health complaints in relation to air pollution and traffic noise (27). Air quality and noise affect a

[1] Dr. Anne Stijkel is one of the leading experts in occupational risks from reprotoxic substances. She is advisory member to the Nationan Health Council of the Netherlands.

substantial part of the population (35, 32, 5). Although emissions of sulfur compounds have been markedly reduced since 1985, summer smog, due to traffic and agricultural emissions is still a substantial problem (9). According to the most recent environmental monitoring data (1997), air quality has ceased to improve at all, despite continuing effort in environmental policy (45). Recent research in the vicinity of Amsterdam Airport reveals serious nuisance or sleeping disorders among 18-31% of the inhabitants within a distance of 25 km. About 1.5 million adults live in that area, most of them outside the legally specified 'noise zone' (34). Nevertheless, the government allows expansion of the airport.

Food safety

Food in the Netherlands quite often exceeds the standards for nitrate and lead. Nitrate promotes stomach cancers and can cause the 'blue baby' syndrom and lead is a reprotoxic substance too, as well as dangerous to child development (10). Cadmium in food may contribute to osteoporosis (brittle bones, an aging disease which particularly strikes women after menopause) (22). Gradually increasing cadmium content of food in the Netherlands is a problem, due to widespread diffuse contamination of agricultural soils from fertilizers and air pollution. Although immissions have been reduced since 1985, there is still a yearly net increment (9, 33). Cadmium, unlike other heavy metals, is taken up readily by plants and food is a major source of cadmium exposition, apart from smoking and air pollution. Smoking, diets high in fibers or shellfish, environmental or occupational exposition and iron deficits are risk factors that may easily result in transgression of safety limits (10, 22). In a Swedish review of cadmium exposure, it was found that women in general show higher cadmium content in their tissues. It was postulated that this was because women more often suffer iron deficit, which promotes cadmium absorption in the body (22).

4 Best practices and major constraints

As was stated before, the major constraints are the limited conception of 'sustainable development' by environmentalists and environmental policymakers. The prevailing mentality, that 'a women's issue is a women's affaire' is of no help either. Of the numerous examples of 'best practices' offered by informants, only two are highlighted in this report.

CHILDREN RECLAIM THE STREET

The foundation 'Kinderen Voorrang! (Right of Way for Kids!) alarmed by a research report from Zürich about the interconnections between child development and children's opportunity to play outdoors engendered a project to reclaim the public space for children's playing ground. First they took stock of all research projects in the Netherlands into the role of outside playing for the physical, emotional and social development of children. At the same time they initiated research into outside playing in several Dutch municipalities. The results proved to be an eye-opener, both to researchers and policymakers: playing outside without supervision is *very* important for motor, social and psychological development. And it is in grave danger, especially in the cities. Many kids hardly play outside anymore. Instead they remain indoors or have to be transported or accompanied by parents (read: the mother) to kindergarten, school or other indoor destinations, thus contributing to parental stress and time constraints for (mostly) mothers, at the same time aggravating traffic problems.

With the results 'Right of Way for Kids' succeeded in establishing the topic on the political agenda of a great many organizations and to raise research interest as well. Next, 'Right of Way for Kids' mobilized local authorities, neighborhood groups and schools to create safe streets and neighborhoods for children. Also they ensured the cooperation of the children themselves. The children proved to be very good advisors for a great many situations. Apart from practical improvements, one of the results is that more and more commissions have adopted the practice to consult the children themselves in matters on their behalf (31, 37, 33,

45). One important commission, who also consulted children, is the Commission on Parental Time Scheduling, who advises government on improvements in facilities for working parents.

THE SOCIAL DIMENSION OF SUSTAINABLE DEVELOPMENT: MAKING THE CONNECTIONS

The NVR (Netherlands Council of Women), an umbrella organization covering 54 women's organizations started in 1996 a project on sustainable development. First they collected information, both from and for the member organizations, which cover about the entire social range, from anti-alcoholism to new spiritualist movements. In several 'sounding board meetings', the issues were discussed with representatives of the member organizations. In the course of this process, the project commission became to realize that sustainable development in the Netherlands is all about physical regulation and target groups, for instance 'consumers' but none about the people involved, let alone women and the quality of their life. Now they started to track down the mere handful of researchers and environmentalists with a broader vision and to develop their own vision of a sustainable society. They have succeeded to raise considerable interest and commitment from their own member organizations for all environmental programs, including the Cairo Programme of Action by employing this wider notion of sustainable development. They are providing impetus for sustainable development as a major theme in contemporary feminism. Their interference also caused the Ministry of Housing, Physical Planning and Environment to reformulate their concept of 'consumers' into 'citizens' and to make a start with the conceptualization of the social dimensions of sustainability.(30, 44, pers. comm. Alice Bouman, NVR).

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NGO-directory

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WECF is a non-governmental, not-for-profit organization that supports women and children in ecological disaster areas in their efforts to reduce pollution and improve their health. Women from 15 European countries established WECF in 1992, during the UNCED Earth Summit in Rio de Janeiro.
Women are often doubly affected by health problems. Firstly, because of their own often more precarious health situation, when for example pregnant. Secondly, because of their traditional role of caring for children and the family. At the same time it is often women who play a catalyst role for change. The projects that WECF supports assist women to understand the causes of their problems and to organize activities to improve their health and environment. These activities focus on practical solutions as well as on increasing women's participation in local and international policy making.

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Most universities in the Netherlands have one or more 'science shops'. These were established in the seventies, in order to give groups and organizations without money access to academic research facilities. The Science Shops carry out research assignments from NGO's against low or no costs, mostly by incorporating the research project in the students' curriculum. The research for this country report was performed by the Science Shop for Biology of the University of Groningen, with valuable information from other science shops in the Netherlands.
Complete address information of all Dutch Science Shops and sister institutes in other countries is offered at the website of the General Secretariat of the Dutch Science Shops: http://wwwbu.tudelft.nl/wetensch/lsw/ehome.htm.

Monitoring Network for Health and Environment/ Stichting Meldpuntennetwerk Gezondheid en Milieu
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The Monitoring Network for Health and Environment is a Dutch NGO, which registers

environmentally related health complaints. Both health complaints and environmental circumstances are coded and saved in a national database. Researchers and institutes can use these data for further research. The data provide signals demonstrating people's perception of environmental pollution.
In addition, these data can help to gain insight in complex interactions between health and environment, relationships, which are always disputed and almost impossible to validate. The more signals from different sources point in the same direction, the more readily such issues will be generally accepted. Similar complaints from independent parties, for instance health problems related to low frequency noise, waste incineration, high voltage lines etc, in general will help citizens to request further research or appropriate measures.

NCDO, National Committee for International Cooperation and Sustainable Development
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The NCDO strives for a sustainable and equitable world for present and future inhabitants. NCDO organizes in cooperation with others meetings and debates about issues related to international cooperation and sustainable development. NCDO coordinated the post-Cairo task group, with 17 NGO's cooperating and is presently holder of the secretariat of the Cairo+5 Committee, an alliance of 28 NGO's.

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The NVR is an association of 54 women's organization in the Netherlands. Since its establishment in 1898, -at the threshold of a new century, the- NVR brings a wide variety of women organizations of all walks of life together. The NVR has always served as a platform for the emancipation of women in society, taking initiative and stimulating discussions on the gender issue; searching for contemporary solutions wich could also benefit future generations. The NVR is a member of the international Council of Women (ICW), established in USA 1888, with consultative status at ECOSOC. The NVR is also member of the European Council of ICW an European Women's Lobby. And the NVR nominates a woman

Right of Way for Kids!/ Kinderen Voorrang!
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Right of Way for Kids campaigns for a safe, child friendly traffic system and a speed limit of 30 km/hr in all built-up areas. The final goal is to make streets permanently safe and reallocate public space in favor of children at play. To this end Right of Way for Kids supports

local groups and activities, by offering free help and advice. In order to influence national policy, Right of Way for Kids makes the interests of children visible by means of research, publications and congresses. Together with hundreds of primary schools and neighborhood groups Right of Way for Kids organizes every year the National Street Play Day. On this day more than a 1000 streets are closed to cars, so that children have this one opportunity to play safely outdoors. Their parents use this day to protest against dangerous traffic conditions and lack of space for children.

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The Pharos Foundation promotes health of refugees and asylum seekers by offering treatment and support by professional and volunteering social and medical workers. In addition Pharos provides education and training, information, documentation and research on health, care and well being of refugees and asylum seekers. By means of methods and programs development, Pharos seeks to promote expertise of professional medical and social workers on health and wellbeing of refugees and asylum seekers.

VON, Netherlands Refugee Organisations
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VON was set up in 1985 as a federation of self-help refugee organizations. In 1994 the federation became a foundation. The objective of VON is to promote the full participation of refugees in all facets of Dutch society. To this end we try to regard refugees in this society as people with their own history, with a special contribution and responsibilities. Genuine emancipation, participation and integration can only be achieved with the support of everyone in society. VON tackles the position of refugees in the Netherlands from the positive vision of a multicultural society. The interest of refugees is promoted by influencing policy, support and communication.
in the National delegation to the UN General Assembly Meeting.

VENA, Women and Autonomy Centre
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VENA Library and Information Services is part of the Intercultural Gender Studies cluster (ICGS) at the Leiden University. The ICGS research cluster emphasizes a comparative approach to gender studies, analyzing gender issues within but also between societies and cultures. Apart from recognized gender issues, research also concentrates on issues of social exclusion and social (in)security of individuals in their various capacities - as state

citizens, as members of (religious) communities, as family and as kin. In this context, the changing social position of the elderly, of children, and of intergenerational relations becomes significant.

AKB, Alternative Consumers Association
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The Alternative Consumer Organization was established sixteen years ago. It campaigns for sustainable consumption, with full consideration for human rights, gender and fair prices. AKB provides critical information on consumer products on all dimensions mentioned above. In 1997 the AKB took the initiative in a national action against xenoestrogens in food, air, water, playing tools and other consumer products. Another campaign, in cooperation with women's and environmental organization concerns clothing. The whole chain of textile production is critically evaluated on ecological and ethical standards and consumers are encouraged to buy 'clean clothing'.

Rutgers Foundation, International Division
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For nearly three decades the Rutgers Foundation has been an expert in sexual and *reproductive health. The organization is one of the founding members of the International Planned Parenthood Federation (IPPF). The Rutgers Foundation operates at a local, national and international level. At these levels the Rutgers Foundation offers a broad range of services, varying from medical and psycho-sexual services to training programmes and (sexual and reproductive) health promotion activities. The services and care are always based on the concerns of individuals, clients and partner-organizations.*
The Rutgers Foundation's way of working is characterized by a positive view on, an innovative and practical approach towards, an up to date knowledge of, and a personal involvement and professional commitment towards the recognition and implementation of sexual and reproductive rights.

Wemos Foundation
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Wemos is a Dutch non-profit organization that addresses health issues through international policy advocacy and national education activities. The organization is one of the few NGOs in The Netherlands that works solely on health issues at both the national and international level. Wemos positions itself at the intersection of health and politics. All the work can be related to the way in which these two areas interact. However, discussions on health involve many other factors. Wemos also considers personal autonomy, social and economic issues,

food security, gender and the health care infrastructure. Wemos works for a better health situation in both the North and South, and also focuses on problems in Eastern Europe

Platform Women and Health/ Platform Vrouwen en Gezondheid
Address: see WEMOS
The Platform was established in 1996 as a continuation of the platform women and health Beijing '95. The Platform wants to contribute to a better quality of life for women to promote the implementation of the Netherlands Action Program Women, Health and Welfare. Seven organizations cooperate in this Platform: Aletta, Wemos, the Rutgers Foundation, Stimezo, Transact, VNVA and Women's Health Action Foundation.

SOVB, Foundation for Research and Information on Population Policy
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The SOVB is active in the area of sexual and reproductive health and reproductive rights. The foundation provides information about the effects of population policy on micro-level from a women's perspective. We stimulate critical comparative research in the field of population politics, reproduction and environment and try to influence Dutch international policy on population.
The SOVB took a leading role in several activities of the Dutch NGO-platform Cairo '94 in view of the ICPD. The SOVB participated as an expert advisor on Women and Health in the Dutch Government delegation and participated in the NGO-Platform in Cairo. Currently the SOVB is an active member of the NCDO-Post Cairo group and involved in the preparation of the NGO conference '5 years after Cairo'.

Netherlands Association for Women's Interests, Women's Work and Equal Citizenship/ Nederlandse Vereniging voor Vrouwenbelangen, Vrouwenarbeid en Gelijk Staatsburgerschap;

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Founded in 1894, the purpose of the Association is to strengthen the self-confidence of women with regard to their position in society. She furthers cooperation on an equal basis with men. She advocates equal representation in all civic, political and social-economic organizations. In addition she advocates a society in which women and men take an equal and equivalent part in paid and unpaid work. Consequently, in relation to the UN, the Association advocates the full implementation of the Convention on the Elimination of All Forms of Discrimination against Women. Vrouwenbelangen is a member of the International Alliance of Women (IAW). Representatives attended the 3rd and 4th World Conference on Women in Nairobi and Beijing, several preparatory meetings and the last session of CSW. We gave a workshop in Huairou on equal political participation and conducted subsequent caucuses. The Association participated in the preparation of the national report on CEDAW anno 1997. We participate in workshops of OSCE. Members attended for us:Cairo (Population), Copenhaguen 1995 (Social Affairs) and Istanbul (Habitat)(1996)

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WPF is a not-for-profit organisation which was established in July 1987. WPF's mission is to work for the improvement in the quality of life of all people by advancing the basic right of women, men and young people to safeguard their own sexual and reproductive health; promoting free and informed reproductive choice; improving access to appropriate reproductive health care services; advancing understanding about the linkages between population, health and well-being, consumption and sustainable development and mobilising resources for the achievement of these objectives. Both by education and awareness creation, media and lobby activities and by supporting local organisations in developing countries to formulate and implement projects in the field of reproductive and sexual health, WPF is working towards the realisation of its mission.

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Ecobaby's mission is to promote healthy and supportive environments for children to grow up and to protect the fetus and child from environmental hazards.

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FORUM is a national expertise and support center for multicultural development. FORUM 's mission is to promote a multicultural society with equal opportunities, based on mutual respect for ethnic minorities.

WEDO, Women's Environment and Development Organization
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WEDO is an international advocacy network that works to achieve a healthy and peaceful planet, with social, political and economical justice for all through the empowerment of women in all their diversity and participating equally with men in decision making from grassroots to global arenas

SECTION 2
BACKGROUND

GENDER, ENVIRONMENT, HEALTH AND REPRODUCTION

Strategical options for sustainability and gender equality: a contribution from behavioural ecology and human needs theory[1]

Maureen E. Butter

Abstract
This paper discusses two mainstream emancipation ideologies, one modelling women's social role after de male standard (feminist Nirvana 1), the other aiming to change men's behaviour into a more feminine pattern (Nirvana 2). The first direction supports the current trend towards professionalisation and commercialisation of hitherto unpaid labour, including care and child rearing. Nirvana 2, on the other hand, requires that men reduce hours spent on paid work, in favour of unpaid activities, both for their own sake and for the community.
According to behavioural ecologists, sex relations are shaped by different cost-benefit functions with respect to reproductive output for males and females. Transgenerational processes are crucial for perpetuation or change of current gender relations. An impressive mount of evidence from animal studies suggests that large differences in resource control within populations (in humans: inequality in income, wealth and power) promote sexual inequality and male dominance over females. Sexual equality and female autonomy, on the other hand, are favoured by reproductive constraints demanding bi-parental care and equal contributions per descendant from both sexes. Even if institutional arrangements and prevailing ideology allow women to pursue career and income on equal footing with men, women are constrained in converting these social gains into reproductive profit. It is hard to beat the traditional pattern in terms of reproductive results. So, feminist Nirvana 1 will not hold over the generations, unless severe reproductive restraints are imposed on both sexes.
Another objection against Nirvana 1 involves the social costs of drawing what remains of unpaid labour into the market. Humans, as an obligatory social species, have fundamental needs for autonomy as well as for connectedness. All known cultures value personal exchange of goods and services on account of relatedness and friendship higher than the market transaction. Unpaid labour is more than an inefficient, if not obsolete way of providing consumer goods and services. It also meets fundamental social needs as relatedness, connectedness and social support. It breeds a sense of social responsibility, a sense of belonging to, of care and willingness to help and a co-operative attitude.
These are important considerations for a policy of sustainable development. Not only when it comes to social responsibility and care for people as well as for the local environment, but also the nature of consumption itself. A strategy embracing Nirvana 2 might provide the means of effectuating the desired shift in focus from material to immaterial values. To this end, men should be encouraged to substitute paid for unpaid work. At the same time, the application of unpaid and informal labour for basic needs fulfilment has to be facilitated. A number of options and strategies are discussed.

1. Introduction: gender ideology

If only women could speak with one mouth, how much more progress their cause would make. As it is, however, international women's conferences have a very hard job to agree on clear-cut courses of action beyond the major abuses. These differences of opinion often rest on implicit differences in gender ideology. A large part of women's organisations adhere to inequality ideologies, accepting a sexual division of labour and interdependency between men and women. They seek solutions amounting to financial or social compensation, or creating special employment opportunities for women. Some of these directions are supported by those who, denouncing any idea of inequality, consider the goal of an equal division of labour and income impracticable for the time being.
Critics of these courses of action point to the danger of perpetuating the ills of economic dependency, women's lack of political power and social or economic opportunities.
In northern feminist circles equality ideologies prevail, aiming at equal division of labour and income between men and women. Mobilising the rest of society, whose ambition range no farther than equal rights, has been proved a notoriously hard job. A majority of contemporary men and women, as well as political factions, may endorse the idea of gender equality in accessibility of jobs, equal pay for equal work, and even equal share of household responsibilities between couples, but at the same time insist on individual freedom of choice

[1] Paper, presented at the IAFFE/ Out of the Margin Conference on Feminist Approaches to Economics, Amsterdam, June 2-5, 1998.

for either symmetrical or asymmetrical arrangements. Any sexual division of labour is conveniently explained away, referring to this freedom of choice.
But even the adherents to the equal roles ideology fail to speak with one mouth, as a major rift divides their ranks. Following Nancy Folbre (1992), I will refer to these camps as Nirvana 1 and Nirvana 2. In Nirvana 1, male's position is the norm. The route to gender equality in Nirvana 1 involves substitution of unpaid labour by paid services and facilitating labour participation for women up to the level of men's. According to Folbre, feminist Nirvana 1 will be reached when:

- The full-time labour-force participation rate of women reaches that of men.
- The wage rate is exactly the same for men and women of equal education, experience and productivity.
- Men and women have exactly the same access to education and experience.
- The tax rate on individual men and women is exactly the same and no tax subsidies or family allowances encourage women to engage in non-market activities, such as childrearing, that diminish their market experience.
- Children are cared for by the most efficient means.

In Nirvana 2, on the other hand, women's role is the standard and men will have to pattern their life accordingly. Unpaid labour, care, social contacts and leisure time are cherished as well as guarded, men are given incentives to decrease their hours of paid labour. Feminist nirvana number 2 will be reached if and when:

- Men substantially increase their hours of unpaid work, devoting more time to home, children and community. Their formal labour-force participation rate would decline to the level now characteristic of women. Men and women would enjoy the same amount of leisure time.
- The wage rate is exactly the same for all individuals with the same levels of education, experience, and productivity, irrespective of differences in nation, race, class and gender.
- Public policies, including the tax and social welfare policies, recognise and reward family labour and personal attention to the health, welfare and education of children, adults and the elderly - wherever these responsibilities are shared by men and women. (Folbre, 1992).

In practice, neither gender equality Nirvana has been realised in any country, or will be in the near future. The economic significance of unpaid labour, subsistence and family labour is still decreasing, while sharing of household responsibilities among the sexes makes little or no real progress. Does this mean that Nirvana 1 has a better perspective of ultimate realisation than Nirvana 2? Or are both Nirvana's of gender equality doomed to remain just that: utopias, never to be realised in all eternity? If not, is a choice between Nirvana 1 or 2 an urgent matter? If it is, what issues does pondering such a choice raise with respect to the matter of sustainable development? And what are the consequences of either Nirvana for political priorities? These questions will be considered in a framework of human ecology and human needs theory.

2. Human ecology, emancipation and sustainability

Behavioural ecology studies behaviour from an evolutionary point of view. In this paragraph insights from behavioural ecology are applied to the problems of emancipation and sustainability. According to biological theory, sex relations are shaped by differences in reproductive interests and ecological opportunities. Within this view, sexual equality is very much a matter of equality in reproductive costs and benefits for both sexes. Monetary costs constitute only a part of these costs, even in highly developed societies.
Biological costs are measured in the currency of life itself: time, life-expectation, reproductive potential, energy or other proxies, depending on the experiment or field study at hand. As for

the benefits, these are counted in quantity as well as quality of descendants. In the long term, quality will translate into quantity, and long-lived species tend to prefer quality strategies to quantity-oriented reproductive strategies (cf. Daly and Wilson, 1983, Alcock, 1993).
Higher order social phenomena, like law, custom and economic order, together with other situational factors, define and modify the costs and benefits for each sex and the space for individual decision making (Winterhalder and Smith, 1992).
Male reproductive strategies are directed to allocating investment primarily to fertilisation of as many females as possible and leaving the costs of raising offspring to females. These strategies often encourage sexual inequality and, in mammals, male dominance over females. Female reproductive strategies aim for good genes and high quality offspring (Alcock, 1993).
Considering the extremely long childhood period in humans, parental effort of both sexes must have constituted a long part of our evolutionary history. This biparental care favoured a diminution of the physical differences between the sexes, an indicator of male dominance over females. Some 100.000 years ago, this evolution in the direction of greater equality came to a halt, possibly because technical and social developments gained more impact in comparison to mere physical characteristics (Hamilton, 1985, McHenry, 1994). Silk (1993) remarks, that in humans male dominance is more extensive, than is expected from the rate of sexual dimorphism in comparison with other primate species. She speculates that the use of weapons, often denied to women, might account for this difference.
Cross-cultural anthropological research reveals a correlation between matrifocality, female power, social and economic equality, peacefulness and co-operation on the one hand and between patrifocality, male dominance, inequality, war and competition on the other (Martin and Voorhies, 1975, Etienne and Leacock, 1980, Sanday, 1981). Behaviour ecology provides a theoretical framework for this phenomenon, corroborated by game theoretical and economic reasoning, as well as by many empirical studies and experiments with animal populations. A survey of biological and anthropological literature suggests, that both density and (the nature of) available resources are important variables (Butter, 1997).
Defensible resources of strategical importance encourage male dominance, inequality and exploitation, both in general and between the sexes. These characteristics depend on what is technologically feasible, as well as on institutional arrangements.
In low-density non-sedentary hunter/gatherer systems women’s freedom of action is greater, as in most systems the costs of restraining female autonomy greatly outweigh any reproductive profits. In many traditional societies of low and intermediate density, habitual warfare and violence against women benefit male reproductive strategies, inhibiting sexual equality. In high-density agricultural systems parental investment is largely directed to legal descendants and the acquisition of inheritable wealth and position. These systems often produce severe limitations to women's freedom of action. In modern society, education and new economic opportunity for the well educated increasingly supersedes the significance of inheritable wealth. As children are no longer an economic asset, the costs , monetary as well as non-monetary, of rearing a child have increased tremendously (Butter, 1997).
Behavioural ecology provides some support for the ecofeminist view that patriarchy is connected to environmental degradation, as males in general have more to gain from wealth beyond personal needs, but gender equality in itself provides no mechanism for sustainable environmental management (Low and Heinen, 1993, Butter, 1997).
Neither is patriarchy in itself a cause of environmental degradation. Rapid economic expansion might initially facilitate a shift towards male reproductive strategies, promoting sexual inequality. Modernisation, as a process of professionalisation, intensification (higher inputs of labour, energy and materials per surface unit of land) and colonisation of low or zero-density regions has affected women mainly by professionalisation, social disruption and

increased social inequality. It also caused environmental degradation, but mainly as a consequence of intensification and colonisation. As these processes are interconnected in many ways, the relation between environmental deterioration and gender inequality is rather complex. Historically speaking every rise in productive capacity has been converted to a considerable extent into reproductive gain. In the short term it raised the quantity of offspring, in the long term, their quality, and also quality of life (Butter, 1997).
There is neither automatic, density-dependent regulation mechanism controlling population growth, nor any inherent mechanism in small-scale locally controlled communities, preventing over-exploitation. The so-called demographic transition as a consequence of a rise in prosperity seems more an effect of the costs of raising descendants with favourable prospects. As such, this is a result of factors not expected to be operative forever (Turke, 1990, Low, Clarke and Lockridge, 1992, Low and Heinen, 1993).
In environmental policy recommendations boiling down to a preservation of traditional ways of life will not suffice in the long term. New instruments have to be developed, regulating individual behaviour and allocating the gains of technological innovation to environmental improvement, at the same time preventing population growth (Butter, 1997).
Quantity-oriented reproductive strategies more often than not reflect patriarchal relations and a high degree of sexual segregation. Essentially these are male strategies. They will be more successful in periods of rapid economic expansion and high social mobility than quality-oriented reproductive strategies, which reflect the relatively high costs of rearing socially successful descendants. Gender equality in general will promote female reproductive strategies, but gender equality is counteracted by social-economic inequality in general. Unless a policy of gender equality incorporates equal reproductive costs, either monetary or non-monetary, neither Nirvana will ever be realised. It will be hard to beat the short-term advantage of an asymmetric division of labour for a couple with children.

3. Needs, sustainable development and the Nirvana's

This paragraph elaborates on the notion of *needs* from the WCED-definition of sustainable development:
'Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.' (WCED, 1987).
Human needs theory is a multidisciplinary field originating from the basic needs approach in development policy (cf. Lederer et al.,1980, Burton, 1990, Doyal and Gough, 1991, Max-Neef, 1991). Where the basic needs approach is restricted to physical requirements, needs theory aims at a comprehensive notion of the essentials for a life in human dignity. This will require more than sheer material needs satisfaction. A universal theory of human needs, like for example Doyal and Gough's, offers possibilities for an intercultural standard of needs satisfaction with respect to both emancipatory and sustainable development (Doyal and Gough 1991, Butter, 1997).

In this paper the following definitions apply:

Need	minimally required condition for life and human dignity
Preference	what individuals or groups desire
Satisfier	means or system to satisfy needs or preferences

Needs are – by definition - individual, satisfiers not necessarily, these may be collective. Some individual needs can only be satisfied by collective satisfaction systems, some of which are cultural in nature, like a shared language and shared values. Also, man as a social being

has fundamental social needs. These two phenomena plead against an all too individualistic systematisation of needs and measures of satisfaction.
Authors differ considerably about the nature of needs. In this paper needs are supposed to stem from human nature. They are open to scientific inquiry, but needs research should be broad and interdisciplinary in order to cover all aspects. Intercultural comparison and analysis can enrich the insight into immaterial needs, at the same time contributing to social awareness of implicit assumptions and cultural biases. This is important, because especially immaterial needs and preferences within a culture are to a large extent implicit. They are no subject for debate or critical reflection, and if deprivation occurs, it is not recognised (Nudler, 1980, 1990, Butter, 1997).
Doyal and Gough's scheme, proposing autonomy and health as fundamental needs, from which all other needs can be derived, seems to underestimate the meaning of relatedness. For man as a fundamentally social being, the need for autonomy is matched by, or complementary to the need for meaningful social bonding (Doyal and Gough, 1991, Clark, 1990, 1994, Butter, 1997).
Apart from kinship, the universal mechanism to establish and sustain relatedness, is informal reciprocity, which stresses the meaning of unpaid labour and resulting moral obligations in establishing and maintaining non-kin social relations of a more than superficial nature. All known cultures value personal exchange of goods and services on account of relatedness and friendship higher than the market transaction (Baerends, 1994). Unpaid labour thus is more than an inefficient, if not obsolete way of providing consumer goods and services. The existence and maintenance of a network of people, who owe each other something, meets fundamental social needs as relatedness, connectedness and social support. It breeds a sense of social responsibility, a sense of belonging to, of care and willingness to help and a co-operative attitude.
Scaling-up, mobility, increasing non-local orientation, decreased family size and substitution of unpaid labour for paid labour all contribute to the erosion of kinship, friendship and neighbour networks. Nirvana 2 reflects a concern about this development and a gut feeling about the needs of connectedness. It acknowledges the intrinsic value of unpaid labour and informal exchange, irreplaceable by any marketable professional form of service, where Nirvana 1 upholds a classical economic view of complete substitutability of unpaid labour for paid work. Nirvana 1 demands a price of essential social needs, and may therefore prove undesirable, even to the point that women may settle for some form of gender inequality and economic dependency, rather than sacrifice major qualities of life.

4. Environmental policy and gender, strategical considerations

This paragraph discusses a few gender aspects of current environmental politics and considers some strategical options for sustainability and gender equality.
Agenda 21, the UN environmental programme, acknowledges women as a major group. On closer inspection however, the main text regards women in the South primarily as *victims* of unsustainable development. The main policies proposed in Agenda 21, concern alleviation of their poverty. Women in the North on the other hand are put forward as *rescuers* of the environment: their role in curbing consumption in the rich countries is stressed (Agenda 21, 1992, Butter, 1997). Dutch environmental policy follows this line, plotted by Agenda 21, perceiving women as 'consumers' (1989, 1990), 'consumers and intermediate organisations' (1994), and, recently, 'citizens' (1998), who incorporate the target group 'consumers'. This development reflects rather cosmetic adjustments to criticism of women's organisation, than emergence of a truly gender-sensitive environmental policy.

The effects of Dutch environmental policy are by no means gender-neutral. So far, negative income and employment effects are to be feared primarily from green taxes and mobility restrictions. Green taxation is a long-term operation, aiming at a transformation of a 'commodity-oriented' economy to a 'service-oriented' economy with supposedly positive employment effects for women. Actual proposals, however, are restricted to raising the consumer price of house fuel, electricity and gasoline. Taxes on house fuel and electricity also will have a stronger impact on those, who spend most of their time at home, the sick, the unemployed, the elderly, the very young and their caregivers. Restrictions to car mobility primarily strike task combiners, but also have adverse effects on traffic associated with care and maintenance of social contact with non-residential kin (Butter, 1997, Nijdeken, 1997).

A second objection to green taxation may be that substitution of direct taxes on paid labour by indirect taxes erodes the base of redistribution between paid and unpaid labour. As long as neither Nirvana has been realised, this is a point of concern. This far, Dutch environmental policy seems more in line with Nirvana 1 than with Nirvana 2. As Nirvana 2 seems more desirable from a perspective of immaterial needs satisfaction, we have to give some attention to possible courses of action.

Some preconditions for an environmentally sound Nirvana 2 involve:

- A predominantly local orientation, both for private and economic activities
- The role of unpaid labour in providing basic material needs is enhanced
- An equal share of paid and unpaid work between couples is an attractive option
- Devoting time to unpaid activities is also rewarding for singles and couples without dependent children. It is preferred over leisure activities involving car and aircraft mobility
- Most of all, the intrinsic value of unpaid work is acknowledged

Part of this requires a form of regulation beyond the market, for instance financial compensation for family care, facilitation of voluntary community work, increase of nurseries and professional care. Barter of services, such as LETS, should be encouraged (Lang, 1994). If public community services would accept LETS for currency, this might provide more space for local environmental care and at the same time lower the costs of living.

Another part requires stimulation of the local economy and creating local employment. Especially activities in the immediate environment of home and sustainable forms of self-employment might be of interest. Since many of these activities are preferred by women, but yield smaller incomes than regular jobs on larger distance, this may counteract the desired income equality and preserve the sexual division of labour.

Another instrument, however, may promote both income redistribution, as well as a shift to service-economy. In addition, its introduction does not depend on international co-operation, any company or local government may start it. Further advantages are, that it is free rider-resistant, as well as compatible with a market economy.

Instead of the usual bonuses employers could pay a premium in the form of a service-voucher, exchangeable for a certain number of hours hired labour from an employment agency. Initially they should be tradable, in order to gain broad acceptance. That should raise the demand for maintenance and repair, as well as influence the trade off between labour and capital. Gradually, the percentage of labour income paid in service-vouchers, should be increased and manipulated as an instrument for environmental policy. At this stage, the tradability may be restricted to the areas, where they have been issued, in order to enhance local employment.

This system will combine beautifully with green taxes, especially when calculations of added value distinguish between labour, finite resources and sustainable investments, which are taxed differentially. Also conceivable is an end result, where we have two types of currency, one enabling the consumer to buy labour, and one to buy material and energy. Any commodity will have a composed price, and people have an income, composed of L (labour)

and M (materials) units, perhaps even I (investment) units, to be spent on the rent of accommodation, capital goods and other durables.

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CHAPTER 11

Reproductive Rights, Really? Five Private Reproductive Health Clinics and Selected General Practitioners' Practices in the Netherlands

Evelyn Schaafsma and Anita Hardon

Family planning services in the Netherlands have gained a worldwide reputation for good quality and efficiency, as indicated by a high acceptance of modern contraceptive methods (approximately 70 per cent of reproductive-age women)[1] and a very low abortion rate (approximately six abortions per 1,000 women per year).[2] The idea that reproductive rights are adhered to in the Dutch context is generally taken for granted. But is the situation really so positive?

Characteristic of the Netherlands is the fact that contraceptive services are not primarily available in specialized family planning clinics, but rather offered mostly by general practitioners (GPs) who provide basic health services to the population. Contraceptives are also available in hospitals where gynaecologists provide postpartum contraception such as IUDs, sterilization and other methods to women who are referred by their GP. The GP practices account for 90 per cent of the contraceptive services provided in the Netherlands; private sexual and reproductive health clinics run by an organization called the Rutgers Foundation account for only 10 per cent of the services provided. This chapter suggests that the quality of care provided by these two channels of care differs.

Dutch policy on population and contraception

The aim of contraceptive services in the Netherlands is to prevent unwanted pregnancy. Much attention is paid to population groups considered to be at risk: migrants and adolescents. The relatively high abortion rate among these groups is the main issue of concern. The country has no explicit population policy. In 1983, the government's aim was to achieve a stable population of approximately 14 million, the number of inhabitants

at the time. In 1988, the policy was slightly rephrased to create more conditions for men and women to combine parenthood with work (for a so-called 'child-friendly' society), based on recommendations made regarding a policy for emancipation.[3]

The government's policy is to respect each couple's right to decide freely and responsibly on the number of children they wish to have. Responsible decision-making implies that couples have to be well informed about sexuality and that they use reliable contraceptives, generally defined as hormonal methods, the IUD or sterilization. The government policy is sometimes characterized as pro-natalistic because families with children receive a subsidy to support the extra costs involved in their upbringing. However, this benefit covers only part of the actual costs of raising children. Thus it can hardly be seen as an incentive for having children.

In 1981, after years of political struggle, abortion was legalized in the Netherlands. The abortion law was a compromise between conservative and more liberal political parties. The compromise was drawn up under great pressure by the national women's movement which called for women to be 'the boss in their own belly'. Under the abortion law, abortion is permitted in emergency situations, that is, when a woman cannot cope with the pregnancy for either medical, mental or social reasons. Physicians must determine if the pregnant woman's situation is such that one can speak of an emergency. The law requires a woman requesting an abortion and the physician to whom the woman has turned to consider the options for five days before concluding whether or not to perform the abortion. Abortions are conducted at registered clinics, most of which are members of an organization called the Stimezo Foundation, or in hospitals. So-called menstrual regulation, which is done within sixteen days after missed menstruation, does not fall under the abortion law and can therefore be done without restrictions in registered clinics. This liberal policy has not, however, led to an increase in the number of abortions performed, as critics strongly predicted. On the contrary, the abortion rate in the Netherlands is the lowest in the world.

What is remarkable about the Dutch situation is that there are no governmental family planning clinics. The general practitioner practices where contraceptives are prescribed and the pharmacies and drugstores where contraceptives are provided are all privately owned. The Rutgers sexual and reproductive health clinics and the Stimezo abortion clinics are owned by private foundations that operate on a non-profit basis with financial support from the Dutch government, although recently the continuation of these subsidies has come under scrutiny.

In the Netherlands, health care is financed through a mixed system of voluntary insurance offered by competing, private insurance companies and a central governmental fund which provides basic insurance for those who meet income requirements. Health-care clients are reimbursed directly

for the services that they receive. Until recently, contraceptives were financed by the government in its basic insurance fund (called the AWBZ, Algemene Wet Bijzondere Ziektekosten) but, as of 1996, only abortion remains covered by this fund. Contraceptives are now included in both obligatory, basic insurance plans and voluntary insurance packages offered by private companies. However, this may change in the future. For instance, in 1995 the Minister of Health announced a proposal to sell oral contraceptives over the counter. This was met by strong opposition by the Parliament, service providers and women's organizations. Eventually, the minister withdrew her proposal. The private sexual and reproductive health clinics do not have a contract with the insurance companies and therefore clients must pay for services themselves. Costs for barrier methods are generally not reimbursed by insurance companies.

Service delivery in practice

According to the National Association of General Practitioners, there are 4,800 general practitioner practices in the country of which approximately 650 run an incorporated pharmacy as well.[4] Most clinics are staffed by one or two doctors. The Rutgers and other related clinics are much less accessible. They are located in only nine cities and serve the surrounding regions.

In the Netherlands, the general practitioner deals with all kinds of problems and questions regarding illness and health. Therefore, family planning services are only a small part of the family doctor's tasks. More than half of the family doctors interviewed for this study said that they carry out ten or fewer family planning consultations each month, with a maximum of forty consultations a month. In contrast, the Rutgers clinics are specialized in sexual health and providing family planning services is a major task. According to interviewed staff, the clinics carry out 120–400 family planning consultations per month.

Both general practitioners and the Rutgers clinics provide services from Monday to Friday. Services from family doctors are mostly available during the day, starting at 8 or 9 a.m. and continuing until 5 or 5.30 p.m. During the day, clients can phone for an appointment or to request a resupply of oral contraceptives. Most family doctors are available every day for consultations, but an appointment is required. All Rutgers clinics' services are available at least during one part of each day, and usually all day. It is advisable to make an appointment, but it is not compulsory. The clinics are also open for consultation and other services one or two evenings each week. Pill users are advised to come for check-ups once a year.

In general practitioner clinics, all consultations are given by trained physicians. Telephone requests for a resupply prescription for the contraceptive pill are handled by assistants, but a doctor must sign all

prescriptions. In the Rutgers clinics, doctors and nurses are available for consultations. A nurse can always ask for a doctor if necessary.

Most of the country's GPs are male, only 18 per cent of currently registered GPs are female. However, the percentage of female doctors is increasing rapidly. The ratio of male/female family doctors for doctors under the age of forty is 72:28 and the ratio of doctors currently in training is 55:45.[5] This study found that in four out of ten GP practices, women could choose to visit a female doctor.

An advantage of the Rutgers clinics is that most of their doctors are female. Depending upon the clinic's size, there are also as many as three female nurses practising there. However, it is not known if the opportunity to see a female doctor to discuss family planning issues is a major reason for clients to visit Rutgers clinics.

Study design

The study was conducted in different regions of the Netherlands. Small villages with a minimum of family planning services were included as well as large urban areas, where all possible services are available. All large Dutch cities offer a choice of services and referral possibilities. The options include male and female general practitioners, a Rutgers clinic, one or more general hospitals and gynaecologists, one or more specialized abortion clinics such as Stimezo (which includes first-line counselling and sterilization), other specialized hospitals and clinics offering in vitro fertilization (IVF), sterilization, pharmacies, chemists/drugstores and vending machines for condoms. The capital, Amsterdam, even has a specialized condom shop called the *condomerie* which supplies all kinds of condoms. In small villages, the family doctor's practice usually has its own pharmacy. Villages usually also have chemists selling over-the-counter medicines, condoms and spermicides.

The forty-three general practitioners included in this research were interviewed at their practices. It was not possible to receive permission from the scientific committee of the National Association of General Practitioners to observe consultations with clients in these practices, hence this part of the study could not be done.[6] Five of the nine Rutgers clinics were visited and provider interviews were held. These clinics differed in size and region. In four clinics, a physician and a nurse were interviewed. In one clinic, only a physician was interviewed. A total of thirty-six client–provider interactions were observed at these clinics and those clients were all personally interviewed afterwards. Clients visiting the Rutgers clinics were by no means representative of the Dutch population. For example, only two clients had children. The average age was quite young: twenty-four years old. In addition, most of those interviewed at the clinics were highly educated. All of the clients interviewed were native Dutch and

spoke the Dutch language. Except for one male client and one couple, all of the interviewed clients were female.

Focus group discussions were done with a group of women above the age of forty, and with young women between the ages of seventeen and nineteen who lived in a northern, non-urban area. Discussed topics included information and education on family planning, experience with contraceptives and family planning services; AIDS and contraception; and the role of the male partner.

Study findings

Free and informed choice of methods When visiting a general practitioner for contraception, clients usually receive a prescription for hormonal pills which they must pick up at a pharmacy. As some doctors in small villages run their own pharmacy, they are also involved in the actual distribution of contraceptives. If no prescription is necessary, such as in the case of condoms or spermicides, the client visits a chemist shop and buys the method over the counter.

The pharmacy system works well. If clients have a prescription, they generally have no problem obtaining the desired contraceptive. If the method happens to be out of stock, resupply is ensured in one or two days. In this sense, availability of methods is very hard to define in the Netherlands. Condoms are available at all chemists and at vending machines located on streets. A special display has been developed for chemists where condoms can easily be seen and obtained in a self-service way. These displays are used a lot and are almost never out of stock. According to a recent study by the Dutch Consumers' Union (Consumentenbond), almost all of the condoms sold in the country conform to European standards but, in practice, they vary greatly in the quality of accompanying client information and price per condom. The ingredients contained in the condoms' accompanying cream or jelly are seldom mentioned. This suggests the need for further investigation due to frequent complaints of irritation by users.[7]

GPs usually stock a small amount of pills (for special cases), injectables and morning-after (postcoital) pills. Morning-after pills are hormonal preparations that can be used between twenty-four and seventy-two hours after unprotected intercourse. Sometimes these can simply be picked up from the GP's assistant or, with a prescription, they can be obtained at the nearest pharmacy. IUDs are present in 40 per cent of GP practices. In these practices, the doctors insert the IUDs themselves. Sometimes a client has to pick up a new IUD at the pharmacy to replace the practice's supply. Very few family doctors have diaphragms available in their practice, nor do they have diaphragm-fitting rings to measure the needed size. They usually do not advise them and do not know how to fit them should

a woman request one. Consequently, clients asking for diaphragms are usually referred to Rutgers clinics.

The methods available at Rutgers clinics include oral contraceptives, IUDs, injectables, morning-after pills and diaphragms. These methods are generally in stock at the clinics. Due to the reimbursement scheme, however, women are often given a prescription by the clinic doctor and referred to a pharmacy to obtain oral contraceptives. Methods that do not need a prescription and are not reimbursed by insurance companies, such as condoms and spermicides, can be bought at the clinic. For sterilization and abortion, referral to a general hospital or specialized clinic is needed. The research done for this book found that all clinics had the contraceptive pill, condoms, diaphragms, spermicides and IUDs available. The progestin-only pill was available in four out of five clinics and injectables were present in three of the five clinics during the researcher's visit.

In interviews, service providers were asked which methods they had prescribed to their clients during the past three months (see Table 11.1).

The data in Table 11.1 show that all GPs and Rutgers clinic providers prescribed the pill during the past three months. The majority of GPs also had advised clients on IUDs. Contraceptive methods which were prescribed or advised by a minority of GPs included spermicides, the diaphragm, morning-after pills and abortion, whereas all Rutgers providers mentioned the diaphragm, morning-after pills and abortion. Advice on condoms seemed to be given equally by both types of providers. With

Table 11.1 Percentage of providers who prescribed or advised clients on specific methods during the last three months (n = 52)

Method	General practitioners	Doctors in Rutgers clinics
Pill	100	100
IUD	81	66
Male sterilization	70	44
Condom	60	55
Injectables	58	66
Female sterilization	56	66
Morning-after pills	35	88
Diaphragm	23	100
Abortion	21	77
Progestin-only pills	14	11
Spermicides	2	44
Natural methods	2	11
Number of respondents	43	9

Source: General practitioner interviews; E. Schaafsma.

respect to sterilization, it is important to note that these doctors referred for male sterilization more often than for female sterilization, which is a consistent pattern in the Netherlands. In their prescription patterns, Dutch GPs seem to favour the combined contraceptive pill, paying less attention to alternative forms of contraception such as condoms and diaphragms.

Costs of methods Currently all costs for family planning methods obtained from or advised by the general practitioner are covered by nearly all health insurance companies for all clients. However, there are some slight differences. For example, the diaphragm is not always reimbursed by health insurance companies. Condoms and spermicides are never reimbursed. Their prices do not differ substantially if one looks at different delivery points. Condom prices differ more by type of condom than by type of selling point. Regular condoms cost about US$1 each in pharmacies, chemists, supermarkets, condom vending machines or Rutgers clinics. Therefore, regarding cost, it does not matter where one buys condoms. The women's condom is much more expensive than the male version. One such condom, Femidom®, costs about US$2, making it twice the price of a male condom. This might influence the choice for a female condom adversely. A tube of spermicide, which should be used with a diaphragm and can be used with condoms, costs around US$7. Diaphragms, when ordered through pharmacies, cost approximately US$10.

At the Rutgers clinics in 1996, each consultation is done for a non-reimbursable fee which must be paid immediately. At the clinics, the pill and injectables cost approximately US$20 and services for insertion of an IUD or diaphragm (including the cost of the method and the consultation fee) is around US$40. Referrals from a Rutgers clinic are also not reimbursed. Therefore, in the case of a sterilization, Rutgers clinic clients are referred to their family doctor who, in turn, refers them to a hospital. An abortion at a Stimezo clinic is free as it is covered by the basic governmental insurance (AWBZ).

Young girls can obtain the pill free of charge at Rutgers clinics thanks to pharmaceutical industry sponsorship. For this reason, they do not have to buy the pills first at a pharmacy and wait for reimbursement as older women have to do. Also, clients under the age of eighteen pay a lower consultation fee. For these reasons, adolescents might be more inclined to go to a Rutgers clinic once a year to obtain the pill. The Rutger clinic in Amsterdam also has special consultation hours for migrants that are free of charge due to city subsidies.

Overall, barrier methods are the most expensive contraceptive methods in the Netherlands. This is due to the fact that condoms are not reimbursed at all; additional spermicides to be used with diaphragms are not reimbursed; and because family doctors almost always refer clients requesting diaphragms to Rutgers clinics. Those consultations are not reimbursed.

These costs may lead to a negative choice for both diaphragms and male and female condoms. Paradoxically, if clients are referred to a gynaecologist who then fits them for a diaphragm, the costs are reimbursed. Of course, this is rarely done in practice.

Because clients have to pay and travel more for services at Rutgers clinics, this influences a real free choice of services. Some participants of the focus group discussions stated, however, that they liked the idea of leaving their village to receive family planning counselling. They felt that it was more anonymous. They said they felt as if they were being watched in their village when buying condoms from a shop or at a vending machine. They also did not want to discuss family planning with their own doctor.

Costs incurred during a first visit might also be a barrier. However, if clients then find out that they are treated very well at the clinic, they may accept the extra costs. Interviews with Rutgers clinic clients revealed that the majority of them would recommend the clinic to friends because of great service. However, they also said they would advise friends to go to their family doctor because of the costs.

Restrictions Providers were asked about any non-medical considerations used when advising against specific family planning methods. All interviewed providers in the Netherlands declared that they never apply non-medical restrictions to contraceptives. Some family doctors said they would not recommend a specific method, or in a few cases disapproved the use, but they said they would never forbid anyone. If doctors opposed using a specific method, it was always based upon medical risks. If a client is persistent, she or he can have a prescription or referral. This is also true for the Rutgers clinics. Here, no restrictions were found for non-married couples, adolescents or those without spousal consent. Still, despite the declaration that non-medical restrictions are not used, age restrictions were mentioned for the pill (too young or too old) by 18 per cent of the GPs and one Rutgers provider. Two of the forty-three interviewed GPs saw low intelligence as a restriction for pill use. This was not mentioned by Rutgers providers. Most providers said they would not advise the pill to people who are forgetful or who lead an irregular life.

Forty-four per cent of the family doctors interviewed said that age was a restriction for sterilization, although the majority were eager to point out that age should not be the only argument used to discourage sterilization. They said they felt that having no children was relevant and that psychological and emotional stability were necessary. They said the choice had to be made by the client her/himself and not by the partner. A combination of individual factors influence family doctors' decision to give positive or negative advice on sterilization. For some family doctors, the age restriction for men is more strict than that for women. Their explanation for this is that figures show that men regret sterilization more often than women.

Regarding the IUD, age restrictions were mentioned by very few family doctors. The concern they had was risk of sexually transmitted infections and the related risk of pelvic inflammatory disease. Doctors saw not yet having children while having a wish to have them in the future as a relative restriction for IUDs and/or injectables. They were apparently not yet aware of the latest professional guidelines set out by the Dutch Association of General Practitioners (NHG) which state that age and having had children should not be considered when prescribing IUDs.[8] The NHG believes that the increased risk for pelvic inflammatory disease is related to inserting IUDs when women have an STD. Hence, their main advice is to take precautions to ensure hygienic insertion. For example, if women have vaginal infections, these should be diagnosed properly and treated if necessary before the IUD is inserted.

Recommendations given for specific conditions The providers were asked to specify which methods they would advise in specific circumstances. All of the providers interviewed who advised specific methods recommended oral contraceptives to space or delay having children. Some family doctors added that this method was their first choice. The majority of GPs also offered other options such as IUDs or condoms. Most of the family doctors thought these methods were second choices. However, their advice depended on the situation. For the IUD, advice was based upon the client's age, whether or not they had children, the period of delay and the client's sexual behaviour (promiscuity). In cases of promiscuity, some family doctors always advised condoms or the 'Double Dutch' method (pill plus condom). The same alternatives were mentioned by Rutgers providers. These providers more often expressed the idea that specific recommendations depended upon the client's wishes. Hence, some providers did not mention any specific method.

If a client wishes to have no more children, sterilization is the method mentioned most often by providers. It is interesting to note that male sterilization is recommended slightly more often by family doctors. Seven GPs said they prefer male sterilization for medical reasons. Rutgers providers did not mention any difference between male or female sterilization. Many providers distinguish between a permanent and reversible method. Some family doctors said they do not promote sterilization because they have seen too many regrets. The client's age and the partner influence recommendations regarding sterilization. If clients are too young, other reversible methods such as combined pills, condoms or the IUD are recommended. Rutgers providers commented less on circumstances, but again stressed that the wish of the client is the most important aspect to consider.

When asked which methods they would never recommend, the majority of providers stated that they would not recommend natural family planning

methods such as periodic abstinence and withdrawal. Spermicides were never recommended for use alone. Differences between family doctors and Rutgers providers do not seem to be that great except for their advice regarding diaphragms. Slightly more than one-third of the interviewed GPs would never recommend this method. Some thought it was unreliable. Others said they did not have enough experience with it. Progestin-only pills were not recommended by about 20 per cent of the GPs because of unreliability. Rutgers providers did not bring up this point.

Clients' motivation to use contraception Family doctors and Rutgers clinic providers were asked whether or not they encourage clients to use contraception. Fifty-eight per cent of the family doctors interviewed said that they do. Target groups included (mostly female) adolescents, postpartum mothers, those who have just used the morning-after pill or have had an abortion, women with large families, migrants, clients who have conditions where pregnancy is contraindicated, and clients being advised on sexually transmitted disease prevention. Most family doctors said it depended on the situation. The GPs who said they did not motivate their clients to use family planning gave reasons such as: 'People have their own responsibility' or 'Clients do not want us to be paternalistic'.

Providers at all the visited Rutgers clinics said that they encouraged clients to use contraception. Adolescent girls and boys receive special attention. For example, if a client enters the clinic for a sexually transmitted disease, they are often motivated to use contraception as well. All of the clients who came to the clinic for the morning-after pill or an abortion were also encouraged to use contraception. The Rutgers clinic providers are more regularly confronted with young people who do not use any contraceptive and who visit the clinic for morning-after pills. Therefore, they are perhaps more eager to motivate clients than family doctors.

Balanced and objective information Information on fertility, sexuality, STDs, HIV/AIDS and safe-sex strategies begins during primary school in the Netherlands and continues into secondary school. For the past few years, family planning has not only been given as part of biology lessons on reproduction, but it is also included as part of more socially oriented classes on relationships and society. Family planning education first became part of the school curriculum in the 1970s. As a result, a large segment of women of reproductive age and their male counterparts should know how to prevent pregnancy in a safe manner. However, the focus group discussions held with young people showed that the quality of family planning and sexual education depends a lot on the teacher. Because family planning used to be taught with biology as a part of human reproduction, it was possible to avoid discussing family planning in a social context.

Both younger and older focus group participants said that the general practitioner was not regarded as a source of information on family planning. Most women said they know what they want from their GP beforehand and ask for a specific prescription or a needed referral. Women above the age of forty who took part in the focus group discussions said that they did not know anything about reproduction, sex or family planning when they were younger. Anything they did know, they had learned from friends. For this reason, they felt it was very important to tell children about sex and family planning. The focus groups suggested that both younger and older women see the mother as the most important source of information, followed by friends. Although they said the media were not an important information source, many items on sex and family planning appear on television, in newspapers and in women's magazines. These messages might subconsciously influence discussions between friends and between a mother and child. For example, in the early 1980s, the media highlighted negative aspects of the contraceptive pill based upon new scientific findings. This information convinced many women to stop using the pill. Family planning information given to young people today is often linked to AIDS prevention.

Information provided by family doctors GPs give information on family planning methods in either verbal or written form. In nearly all of their practices it was possible to find brochures or pamphlets on methods in the waiting room. In a recent study, women were asked about their pill use and the role of the family doctor.[9] More than half of the interviewed women said they did not need any additional information from their GP. From this study, it appears that family doctors give less and less information on family planning because women already know things about it. The small minority of interviewed women who did want more information on different methods did not receive the information they wanted.

Table 11.2 shows to what extent information materials were available in GP practices and at the Rutgers clinics.

Eighty-four per cent of the GPs interviewed said written materials in Dutch were present at their practice. Approximately one-third of the clinics had information in languages other than Dutch. These were prepared especially for migrants. Languages mentioned were Turkish and Arabic (for Moroccan immigrants), but items in French and English were sometimes available as well. In contrast, all Rutgers clinics had information materials available in Dutch and other languages. Some GPs said they rarely used written materials and, indeed, such materials were not present in their waiting room. Twenty-one per cent of family doctors used different kinds of pictures during consultations, in addition to written material, 26 per cent made their own drawings to clarify matters and 12 per cent referred to books that clients could borrow or buy.

Table 11.2 Percentage of general practitioners and Rutgers clinics with general information available (n = 52)

	GP	Rutgers
Dutch materials available	84	100
Materials available in other languages	33	100
Other materials		
examples	21	100
pictures	26	100
books advised/available on loan	12	100
Number of service delivery points	43	9

Source: Provider interviews; E. Schaafsma.

Most available brochures or patient information leaflets focus on one method or one brand. Only one brochure was mentioned that gives information on all family planning methods. This brochure is sponsored by Schering, a pharmaceutical manufacturer which sells different contraceptive pill brands. This brochure was used by many of the interviewed GPs.

In contrast, the Rutgers clinics make available written materials developed by their own education department. Leaflets are available on the pill, IUD, sterilization, the diaphragm, morning-after pill, female condom and male condom. These leaflets can be obtained in the waiting room, but are also used during consultations. Other informational material used includes examples of all methods, dolls and pictures of the human body.

It was found that informational materials were used in approximately half of the consultations observed at Rutgers clinics. In 37 per cent of the cases, the information was already known, so no explanation was needed. In 11 per cent of the cases, examples of methods were used and in two cases (6 per cent) other visual material was used. Informational material was used if it was found to be necessary and effective. Only seven of the observed consultations involved new users of contraception. In those cases, many kinds of materials were used including examples, pictures and leaflets. In exit interviews, all of the clients who read the leaflets said the written information was comprehensible and written in their own language.

During observations at Rutgers clinics, the researchers focused attention on the specific types of information provided to clients. Afterwards, during exit interviews, clients were asked about the information they had received (see Tables 11.3 and 11.4).

The observations gave the impression that the quality of information given at Rutgers clinics is generally good. Providers take time for clients and many items are discussed, even if clients visit only for a check-up or

Table 11.3 Number of clients who received specific information by type of method adopted (n = 34)

Information given	Pill (15 resupply/ 4 new users)	IUD (3 new users)	Morning-after pill (12 new users)
Discussed how it works	5	2	3
Discussed use	10	0	11
Discussed contraindications	4	3	2
Discussed side effects	9	3	12
Discussed how to manage side effects	1		5

Source: Clinic observations; E. Schaafsma.

resupply. Nineteen cases of pill use were observed including four new users and fifteen cases of resupply. How to use the pill was discussed ten times and side effects came up nine times. All new users were told about its use and side effects. Contraindications were not mentioned to new users.

New users of the morning-after pill received a lot of information before it was provided. Effectiveness, use and side effects were always or nearly always explained. Management of side effects was discussed only in half of the cases. In some clinics, however, the packet containing the

Table 11.4 The type of information given at Rutgers clinics as reported in exit interviews (numbers of clients) (n = 32)

	Yes, today	Yes, previous visit	Partly	No	Information not needed
Explained how it works	21	4	2	1	4
Showed how to use	18	3	1	1	9
Described any side effects	22	3	0	4	3
Discussed management of side effects	16	3	1	8	4
Discussed where available	25	4	0	0	3
Asked if there were any questions	24	2	0		

Source: Rutger clinic exit interviews; E. Schaafsma.

morning-after pills also includes an anti-emeticum to alleviate vomiting resulting from taking the pills.

The three observed consultations of IUD users all involved new users, although two clients already had prior information. How the IUD works and its effectiveness were discussed twice. Contraindications and side effects were mentioned in all observed interactions. Management of side effects was discussed once, but some providers told clients to come back if they experienced any problems (including side effects).

The exit interview data confirm that generally information is adequately provided during consultations at Rutgers clinics (see Table 11.4). An important finding is that twenty-four of the thirty-two clients (75 per cent) reported that the provider had asked if they had any questions. The data, however, suggest that side effects are not always discussed during consultations.

Incentives and disincentives In the Netherlands, there is neither a system of benefits for family planning users or providers nor any sanctions against non-users. Physicians' salaries do not depend on whether or not clients are users. The pharmaceutical industry's influence, however, might be an incentive for doctors to prescribe more hormonal contraceptives. Industry representatives promote pill brands to doctors. Thirty-seven per cent of the family doctors interviewed said that they meet with drug company representatives. At least one provider at each Rutgers clinic sees such representatives. These drug representatives mainly promote the contraceptive pill. GPs could also be influenced by drug advertisements sent by mail or printed in medical journals or by information presented at medical conferences organized by drug companies.

A health-care infrastructure that enables safe use In addition to assessing the quality of the information provided at Rutgers clinics, the researchers also assessed the adequacy of the examination given during consultations with new users. Two patient–provider interactions were observed where an IUD was inserted. This was done in a hygienic manner (clean sheets, gloves, washed hands, clean room and materials, etc.). It was not observed if the speculum used had been sterilized. All other materials used were disposable. All of the Rutgers clinics visited had clean examination rooms with blood-pressure cuffs. The pleasant atmosphere of the consultation rooms seemed to enable free and relaxed interaction between the client and provider. In GP practices, the researchers found clean examination rooms and separate consultation rooms. It was not observed if the speculums used were sterilized in accordance with the standard protocol on hygiene. Disposable gloves and blood-pressure cuffs were observed. The Dutch protocol on IUDs stresses that IUDs should be inserted in a hygienic manner and describes this process in detail.

During interviews, Dutch providers were also asked what kind of

Table 11.5 Advice to clients if breastfeeding (%)

Advice if breastfeeding	GP	Rutgers
Contraception unnecessary	0	0
Use combined pills	60	55
Use progestin-only pills	9	22
Use condoms	51	88
Use diaphragm	12	44
Use spermicides	0	0
Use IUD	28	66
Use injectables	0	0
Start contraception after breastfeeding stops	0	0
Do not know	0	0
Depends on age of child	0	0
Number of providers	43	9

Source: Provider interviews; E. Schaafsma.

contraception they would recommend when a women was breastfeeding. The results are given in Table 11.5.

The majority of interviewed Dutch providers mentioned the combined pill as a possible contraceptive to use while breastfeeding, although some providers were reserved in prescribing it. Their comments included: 'It is not a first choice, but it is wanted by women'; 'Information should be given on declining breastfeeding'; 'Only light pills used'; 'Prescribing only after six to eight weeks'. These comments suggest providers are aware of the fact that combined pills influence the quantity and quality of breastfeeding, but that this fact does not make them reject combined pill use when a woman is breastfeeding. The lactational amenorrhoea method (LAM) is never mentioned and progestin-only pills are infrequently advised. This may be explained by the fact that Dutch providers see progestin-only pills as an unreliable method in general. One family doctor said that advising use of these pills while breastfeeding was old-fashioned. The IUD was mentioned by less than one-third of the family doctors. They did not see it as a first choice, also because it can be placed only six to eight weeks after delivery. The advice given by Rutgers providers differs on a few points. Condom use was mentioned more often than pill use or the IUD. Rutgers providers offered more possible solutions. Therefore, the percentage of providers advising an IUD, progestin-only pills and the diaphragm was higher. The attitudes towards combined pill use did not differ substantially. It is remarkable that the health practitioners did not express any awareness of the contraceptive protection offered by complete breastfeeding by women who are not yet menstruating again and whose infant has not yet reached six months of age.

Table 11.6 Advice to women with abdominal pain during IUD use (%)

	GP	Rutgers
Physical examination	70	66
History taken	23	55
Referral to a gynaecologist	7	22
Check for pelvic inflammatory disease	67	33
Remove IUD	60	44
Pregnancy test or test for sexually transmitted diseases	7	11
Switch method	7	0
Number of providers	43	9

Source: Provider interviews; E. Schaafsma.

The providers were further asked what they would do if a client presented herself with abdominal pain while using an IUD; or with severe headaches while using the contraceptive pill. Their advice can be found in Tables 11.6 and 11.7.

The majority of interviewed providers saw abdominal pain as a potentially serious situation. Therefore, most doctors said they have to check carefully for pelvic inflammatory disease and would have to determine treatment afterwards. Some also pointed out the possible treatments. It is striking that 60 per cent said that the IUD probably has to be removed, as this is not the first-choice treatment according to the Dutch guidelines on IUDs. These first advise medication, and if there is no response then removal.[10] Rutgers providers mentioned removal of the IUD more often than medication.

With respect to a client's complaint of severe headache during pill use,

Table 11.7 Advice to women with severe headaches during pill use (%)

	GP	Rutgers
Advise to continue for some time, check again later	44	11
Stop the pill	0	0
Take history of menses	7	44
Search for other causes	23	11
Switch method	17	33
Switch brand	81	100
Other	9	0
Number of providers	43	9

Source: Provider interviews; E. Schaafsma.

the majority of GPs interviewed said to switch pill brands. Nearly half of the GPs interviewed first advised continuing for some time and then having another check-up after two to three months. If the headaches persisted, the majority of GPs would then switch brands. Some advised stopping pill use for a while and then switching brands. During all of the interviews, switching brands was mentioned by more than 80 per cent of the family doctors and all of the Rutgers clinic providers. Four out of nine Rutgers providers take a menses history to find out whether or not the headache occurs during the pill pause period. In doing so, they check when the headache occurs, during menses (a) or during the pill use period (b). The solution for problem (a) is removing the pill pause. The solution for problem (b) is often another brand or sometimes another family planning method. Guidelines for oral contraceptives were developed in 1989 and were the first of their kind. However, they do not include suggestions on how to handle cases of severe headache.

Conclusions

Reviewing the results of the GP interviews, it can be concluded that, in general, Dutch GPs do respect free and informed choice. No strict, non-medical restrictions are applied in the Netherlands and GPs seem to respect clients' wishes. Today in the Netherlands, doctors generally accept the idea that clients should decide for themselves. Unfortunately, as no data could be collected from actual client–GP interactions, it is not known how GPs apply this view in practice.

Most GP prescriptions are for the contraceptive pill which is used by two-thirds of the women using contraception in the Netherlands. One reason for this high rate of pill use could be the fact that doctors prefer to prescribe the pill more than other methods because they consider other methods too unreliable (barrier methods) or less appropriate for other reasons. Women, on the other hand, indicated in the focus group discussions that they know which method they want when they go to see their GP. Usually they want the pill. Free and informed choice is explicitly mentioned in the Dutch professional guidelines on oral contraceptives. Here, it is said that the GP should focus on information and counselling. If a woman asks for the pill, the GP has to ask if she has already considered other methods and if she has any questions.[11] An important service provided by Dutch GPs and the Rutgers clinics is emergency contraception in cases of unprotected intercourse.[12]

Interviews with providers and observations and exit interviews carried out at Rutgers clinics show that providers give their clients a genuine choice of methods and provide adequate information. In general, it was observed that a lot of information was given on several methods. Free choice in the Rutgers clinics is, however, affected by costs. Consultations

with doctors at Rutgers clinics and the methods provided there are not reimbursed by insurance companies.

Costs also affect free choice in GP clinics, where only medical contraceptives are reimbursed. That is, barrier methods are generally not paid for by insurance companies. Barrier methods are thus the most expensive contraceptive methods for clients in the Netherlands.

In GP practices, brochures and pamphlets on family planning methods are available. However, the brochures are often not objective (produced by industry) or are rarely used. The pamphlets produced and used by Rutgers clinics are very usable and provide balanced, objective information.

In the Netherlands, Rutgers clinics and GP practices are well equipped to ensure safe fertility regulation. They are staffed by medical doctors who are trained in family planning during their university education. During GP interviews however, doctors stated that they do not attend refresher courses. Rutgers providers do take refresher courses.

Both GPs and Rutgers clinics offer an appropriate constellation of health services. Because the GP is the key person for primary health care in the Netherlands, sexually transmitted disease care, HIV/AIDS care, infertility treatment, maternal and child health care and unwanted pregnancy counselling can be obtained through them. The care is not specialized, but adequate referral can be given. Rutgers clinics offer specialized care on sexually transmitted diseases, HIV/AIDS, unwanted pregnancies and sexuality counselling. The latter offers the opportunity to treat family planning in a broader perspective, instead of from a purely technical/medical approach.

It can be concluded that, in general, reproductive rights are adhered to in the Netherlands. The quality of care can be qualified as good. However, looking closely at the results, a few observations can be made. The GP as a family planning provider is very accessible. All Dutch citizens have a GP who is located near their home. Because of their broad tasks, however, GPs cannot be expected to specialize in family planning. Also, for some adolescents the fact that the GP is the family doctor may become a barrier to consulting him/her on family planning. Adolescents frequent the Rutgers clinics. Clinics like those run by the Rutgers Foundation offer specialized care, if necessary. Their providers are specialized in family planning and offer an appropriate constellation of other related reproductive health services. Services at the Rutgers clinics, however, are more expensive because they are not completely reimbursed and their services are available only in nine cities.

The data included in this chapter demonstrate that the Rutgers clinics provide good quality of care for clients compared to the general practitioners interviewed. This can be seen in such elements as the wider range of methods offered to clients and the availability of better

information materials. At the same time, Rutgers clinics remain relatively inaccessible due to the distance many clients must travel to visit them.

Recommendations

Provide objective information General practitioners should be encouraged to use more objective information materials during consultations. This should include the new leaflets on contraception produced by the Dutch Association of General Practitioners. Such materials diminish reliance on industry-produced information that highlight certain methods.

Increase choice The contraceptive pill is the most commonly used and prescribed contraceptive in the Netherlands. In the future, research could be done to give insight on when the pill might be a less positive possibility. For example, this could be the case if women become more concerned about side effects caused by the pill. More attention could be given to the IUD, since the new standard developed by the Dutch Association of General Practitioners on IUDs has diminished the number of contra-indications regarding its use. This study has revealed that GPs apply restrictions to IUDs because of perceived risks for pelvic inflammatory disease and related infertility problems. New professional guidelines emphasize that the method can be used in women who have no children or who are at risk of STDs, as long as they do not have an STD when the IUD is inserted.

Promote barrier methods Based on the data presented here, GPs are especially unlikely to advise women to use the diaphragm, even though the diaphragm is often prescribed at Rutgers clinics. One could conclude that family doctors need to become more informed about the benefits of female barrier methods and should discuss them more often as an option for women seeking contraception. Discussions on such barrier methods should include the female condom.

At the same time, a debate has to be initiated on the promotion of male condoms as contraceptives as condoms can enhance male responsibility.

End reimbursement differences Consultations provided at Rutgers clinics should be reimbursed by insurance companies. That this is currently not the case is an important impediment to people's (especially adolescents', young adults' and migrants') right to a free and informed choice of methods. The price disincentive currently working against barrier methods should also be removed and these methods should be reimbursed.

Inform breastfeeding women about their contraceptive options The findings suggest that GPs should be provided with more information on the methods of choice for breastfeeding women, including the lactational

amenorrhoea method (LAM). Women need to know that use of combined pills while breastfeeding affects the quantity and quality of their breastmilk.

Encourage more cooperation General practitioners and Rutgers clinics need to make better agreements about the provision of family planning care on a regional basis. Family doctors should refer clients more systematically to the Rutgers clinics for services that they themselves do not offer. GPs should also be trained in gender-sensitive approaches that have been developed during the past twenty years in the area of women's health-care services.

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Notes

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PART THREE

Conclusion

Background Exposure to Dioxins and PCBs in Europe and Resulting Health Effects[1]

Janna G. Koppe, Gavin ten Tusscher and Pier de Boer

Introduction

In 1977 Kees Olie published an article on dioxins formed during municipal incineration and the emissions thereof into the environment (1). In the early eighties, Gunilla Lindström reported her discovery of dioxins in her own breastmilk, and in breastmilk of German mothers (2). In 1986 Martin van den Berg was the first to detect dioxins in human breastmilk in the Netherlands (3). Following this, a world-wide survey on the dioxin concentrations in human breastmilk was conducted by the World Health Organisation (WHO) (4).

The question raised, was what health consequences these dioxin levels could have for a population. In order to address the issue, several studies were initiated in the Netherlands in 1987 and in 1990 (5 ,6, 7).

In animal studies, dioxin exposure has been demonstrated to have effects on various physiological systems. One of the most sensitive systems affected is the immune system. At body burdens of only 5 ng TEQ (TEQ =Toxic Equivalency Factor) per kilogram bodyweight, effects on the immune system were elicited in non-human primates (8).

In addition, it became clear that the foetus and newborn baby are the most vulnerable subjects. Their developing systems are exposed to the dioxin concentrations of the mother during pregnancy and postnatally to the ingestion of highly polluted breastmilk.

The vulnerability of the foetus and newborn is the result of the many imprinting processes that take place in the perinatal period (9). For example, for humans it is known that the imprinting of the sexual identity takes place in the second and third trimester of pregnancy, in response to hormone production. Not only genetic determination plays a decisive role in sexual development, but so do environmental factors.

Another aspect of imprinting is the hormonal and enzyme imprinting. Faulty imprinting caused by the introduction of certain hormones, or chemicals mimicking these hormones during the sensitive period, can cause disturbances in physiological regulation. For instance the setpoint (the optimal concentration point) of the thyroid hormonal system could be set (slightly) higher or lower. A lowering of the setpoint for body temperature was detected in rats exposed to dioxins during the perinatal period (10).

The setpoint for the induction of enzymes can also be altered, as can be seen in the alteration of the activity of the cytochrome P450 system. The activity of this enzyme system, responsible for detoxification, may be altered in a positive or negative way, in response to prolonged periods of exposure to toxins. In rat studies, Benzo(a)-pyrene has been shown to change this activity setpoint resulting in a delay of enzyme induction (11). This may be ominous for the development of malignancies. A delay in enzyme induction may mean longer exposure to toxic chemicals, or to toxic chemical metabolites, possibly resulting in adverse health effects.

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Behavioural imprinting is another example whereby environmental influences in the perinatal period play a pertinent role. Appropriate reactions are dependent on appropriately working hormonal systems in a baby.
A well-known example of imprinting is that of the immune system in the perinatal period and during infancy. In all four above mentioned fields, sexual, hormonal, enzymal and behavioural, abnormalities can be expected, and have been elicited, in relation to exposure to chemicals such as dioxins and polychlorinated biphenyls (PCBs).
Not only the effects of environmental pollutants on imprinting, but also the direct effects of chemicals and pharmaceuticals used by the mother may be detrimental; an example of such a pharmaceutical hazard is the maternal usage of phenobarbital. Interestingly enough, an important part of the PCBs detected in human breastmilk are phenobarbital-like (-138, -153, -180).
Let us now consider both the direct causal effects and the effects of faulty imprinting in human babies, and their follow-up, in the light of the current background levels of dioxins and PCBs.

Direct Effects

Vitamin K metabolism

Analogous to the effects of phenobarbital, it was hypothesised that PCBs and dioxins can disturb vitamin K metabolism in utero and after birth, resulting in a deficiency of the vitamin (12). Vitamin K is necessary for the carboxylation of prothrombin in the liver, and is probably also used for similar reactions elsewhere in the body.
In human babies Lane has described a new disease entity: the late haemorrhagic disease of the newborn (HDN). HDN is based on vitamin K deficiency and is characterised by severe intracranial bleeding between one and three months after birth (13).
Like dioxins, and dioxin-like PCBs, ortho-substituted non-planar PCBs are commonly encountered, and can be found in rather high concentrations in breastmilk - 63% of the total amount of PCBs in human breastmilk comprises ortho-substituted non-planar PCB-22, -52, -138, -153 and -180. These PCBs have phenobarbital-like effects. They are capable of inducing enzymes in the liver, resulting in an increased vitamin-K metabolism, which may ultimately lead to deficiency of the vitamin. These effects have been shown in animal studies. In addition, vitamin K deficient haemorrhagic states were more prevalent in male animals - this is counteracted by oestrogen. Pre-treatment of female rats with androgen decreased prothrombin levels, resulting in an increased incidence of the vitamin K deficiency haemorrhagic state.
Three forms of HDN are described: the early, the classic and the late form. The early form can result in a life-threatening haemorrhage during pregnancy, during delivery or within 24 hours after birth. This is known to occur in conjunction with maternal usage of anticonvulsant medication, certain antibiotics, and tuberculostatics - all potent inducers of the hepatic cytochrome P450 enzyme complex.
The classic form involving exclusively breastfed infants, occurs during the first seven days of life and results mostly in a benign gastro-intestinal bleeding, the so-called 'melaena neonatorum'. Since the discovery of the role of vitamin K, the vitamin has been shown to be an effective treatment for babies exhibiting melaena during the first neonatal week.
The late form of HDN, in contrast to the early and classic form, is a new disease entity. It is characterised by severe intracranial bleeding between one and three months after birth. It is exclusively found amongst breastfed children not receiving extra vitamin K supplementation.
Epidemics of this disease have been described. In Japan, in particular, 425 cases of late vitamin K deficiency bleeding occurred between 1981 and 1985, including 284 males and 141 females. Once again a preponderance of males (14). In Germany, Netherlands and England sporadic cases of late HDN have been described since 1980 (12). Furthermore, in a Dutch study, about ten percent of breastfed babies had

biochemical abnormalities in their blood, indicating a vitamin K deficient state (15). These babies had not received extra vitamin K supplementation after birth. Vitamin K levels are normally low during pregnancy and after birth. As a result of efficient recycling only nanograms of vitamin K are needed per day (16). A breastfed infant receives about 5 micrograms per day of the vitamin - therefore 1000 times more than it needs. However, when the cytochrome P450 enzyme complex is activated, vitamin K is metabolised and excreted with the gall, and this may rapidly lead to a state of deficiency in an exclusively breastfed baby. Activation of this enzyme complex in the perinatal period is thus an intoxication symptom.
Extra vitamin K suppletion is therefore used in Europe today, in order to prevent vitamin K deficiency during breastfeeding. Intramuscular injections of milligrams of vitamin K are sufficiently effective in the prevention of bleeding. However, a relation between leukaemia and intramuscular vitamin K injections has been found in epidemiological studies, so that oral suppletion is now recommended (17). Why nature chooses to keep vitamin K levels low in babies is unknown. An explanation might lie in the endocrine disrupting properties of the menadione molecule, a synthetic form of vitamin K, which has inherently oestrogenic properties (18,19).

Congenital anomalies.
Infants with congenital PCB poisoning in Taiwan were characterised by hyperpigmentation, intra-uterine growth retardation, natal teeth, pigmented dysplasia of the nails, hirsutism, hypertelorism, conjunctivitis, clinodactyly, widely open fontanels and spotty calcifications of the skull. Mortality was high, with twenty-five percent of these hyperpigmented babies dying within four years of birth. Respiratory distress and pneumonia during the first six months of life was common (20).
In the discussion of what effects may be expected as a result of the background levels of PCBs and dioxins, congenital anomalies did not have the highest priority. Animal studies have shown that the dose of toxic chemicals has to be rather high in order to cause malformations. In Europe, this resulted in neglect of studies into this toxicological aspect, possibly wrongly so. In certain regions where exposure is high, clusters of defects can be found. In a literature search, several publications indicate congenital defects, for instance amongst inhabitants in the neighbourhood of landfills, or after the spraying of insecticides (21, 22). Additionally, the open combustion of chemicals may cause an increase in congenital malformations as described in these proceedings (23).
After the Seveso incident no increased incidence of congenital malformations was detected. However, many women underwent an abortion after the disaster, for fear of the consequences for their unborn baby (24).
What is striking in all the publications relating PCBs, dioxins, insecticides and herbicides with the incidence of congenital malformations, is the reported increased incidence of midline defects. This same increased incidence in midline-defects is seen with maternal usage of anticonvulsant medication during pregnancy (25). Cleft lip and/or palate, spina bifida, gastroschisis, heart defects, hypospadias and inguinal hernias are amongst the malformations mentioned: all are examples of midline defects (23, 25, 26, 27).
Presently, the incidence of hypospadias, both in Europe and the United States, is rising. Endocrine disrupting chemicals with estrogenic or anti-androgenic effects are blamed for this rise (28, 29).
Another so far unexplained finding is the fact that parents with high levels of TCDD after the Seveso incident gave birth almost exclusively to female offspring (30).

Thyroid Hormone levels
Dioxins and dibenzofurans have a similar chemical structure to that of thyroid hormones. Structurally the only difference is that the chlorine atom of the former is situated in the position of the iodine atom of thyroxin. This structural similarity gave rise to the hypothesis that dioxins and furans are able to mimic the working of thyroxin, and

while this effect has long been suspected, it has never been proved conclusively (31, 32).
During human gestation, the human foetal hypothalamic-pituitary-thyroid system is relatively quiescent and foetal thyroid hormone production is limited until a gestational age of eighteen to twenty weeks. During the second half of gestation, the functioning of the foetal thyroid gland increases, under influence of an increasing TSH (Thyroïd Stimulating Hormone) concentration. There is also a progressive increase in the concentration ratio of free T4 to TSH, suggesting maturation of the hypothalamic-pituitary negative feedback control system for TSH secretion. Thyroid system maturation during the latter half of gestation can be characterised as a balance among increasing hypothalamic TRH (Thyreotropic Releasing Hormone) secretion, increasing pituitary sensitivity to thyroid hormone inhibition of TSH release, and increasing thyroid follicular cell sensitivity to TSH, according to Fisher (33). Chemicals mimicking thyroid hormones can disturb this process. In this light studies on the effects of background exposure to dioxins in our country also focussed on the thyroid hormone metabolism. In both the Zaandam study of Pluim and the Rotterdam study of Koopman-Esseboom, abnormalities in thyroid hormone metabolism were detected in relation to dioxin levels. Pluim detected a significantly higher T4 concentration during the first eleven weeks of life in the higher exposed babies, who also exhibited a significantly higher TSH concentration at eleven weeks of age (34).
Koopman-Esseboom detected lower free thyroxin (FT4) and T4 concentrations shortly after birth, and also higher TSH concentrations at 2 weeks and 3 months of age, in her higher exposure group (35). In her study, she found no relation between dioxin levels in the neonatal period and neurological abnormalities, and no relation between the lower thyroxin concentrations in the neonatal period and neurological abnormalities (36).
Thyroid hormones also play a part in brown adipose tissue thermogenesis. This form of heat production involves the rapid burning of the triglycerides that are packaged around the great vessels, in order to keep the baby warm. From animal studies it is known that this manner of thermogenesis is jeopardised by dioxins, making survival after birth more difficult (37).

White blood cells and blood platelets.
Pluim detected lower concentrations of granulocytes and monocytes on the seventh day of life, in the prenatally higher dioxin-exposed babies. At eleven weeks of age the concentration of blood platelets were lower in relation to the amount of dioxin the babies ingested with their breastmilk. In Rotterdam a similar decrease, in relation to pre- and postnatal exposure to dioxins was detected in the concentration of granulocytes at three months of age, together with a lower monocyte count. The lowering of white blood cell and blood platelet counts is probably due to an inhibition of the bone marrow by dioxins. At the follow-up after approximately two years, both studies discovered that the exhibited lowering of these white blood cells was no longer evident (38, 39). An extensive reduction of lymphocyte stem cells was seen in the bone marrow of the offspring of female rats, treated with one dose of dioxins of **10µg/kg** body weight during pregnancy (40). Another study in non-human primates showed a lowering of CD4+ lymphocytes and an increase in CD8+ lymphocytes after a single dose of only ten nanogram TCDD per kilogram body weight (41). Thus, direct effects on the immune system, also in humans, are already present at low background exposure levels.

Infectious diseases in infancy
In follow-up studies no significant differences in the number or sort of infectious diseases were detected, up to the age of about two years (38, 39). Yet, in the Rotterdam study, at the age of 42 months, more middle-ear infections were found in relation to the current PCB-levels of the children (42). This relation to the current PCB-levels, however, might not be due to a disturbed immunological function, but rather to a direct effect of PCBs on the epithelium of the Eustachian tube. It is known that PCB-

metabolites preferentially accumulate in the Clara cells of the lung, resulting in hypersecretion. Due to the fact that the epithelium of the lung is of the same origin as that of the Eustachian tube (which, for instance, also produces surfactant), it is logical to offer the hypersecretion in the Eustachian tube as an explanation for the middle-ear infections (43). This hypersecretion could also be an explanation for the increase in respiratory diseases seen after PCB poisoning (44).
These above-mentioned studies were conducted in normal, healthy, pregnant mothers and their babies. Pathology in the mothers and babies, or complications during pregnancy, delivery, or in the neonatal period, led to the exclusion of the subjects from the particular study. This approach has the severe disadvantage, that direct toxic effects, resulting in disease during this most sensitive period, are not detected at all. For instance infections, haemorrhaging and new disease entities may be overlooked, due to the exclusion of the subjects from the studies. Another new disease entity in the newborn, apart from late HDN, is the group B streptococci epidemic. This epidemic has its unexplained origin in the sixties (46). It can be hypothesised that the rise in group B streptococci infections is related to the background PCB and dioxin exposure. A modulation in serum complement levels following dioxin exposure in mice has been published. The dioxins enhanced the susceptibility of the mice to *Streptococcus pneumoniae,* a bacterial pathogen. The host defence is complement mediated in mice. Humans also rely on their complement system to combat this bacterial pathogen (45). The complement system of the human newborn is deficient, rendering the infant susceptible to infections. This is not so for the mother and it is unknown why the streptococci infestate her cervix during pregnancy, leading to premature delivery and to severely ill babies infected in utero or during delivery. In order to study this hypothesis, ill babies in particular should be included, making the study inherently more difficult to perform.

Birthweight and growth
The offspring of mothers accidentally exposed to PCBs and furans during pregnancy, are characterised by low birth weights (20). Reduced birthweights and smaller head circumferences are also described in the study of the babies of mothers who consumed fish from Lake Michigan (47). In follow-up studies the children remained smaller than contempories and there was no catch-up growth (48, 49). Children of fishermen from the east coast of Sweden, known to have consumed PCB- and dioxin-polluted fish from the Baltic Sea, had lower birthweights than their counterparts from the west coast (50).
In Rotterdam, effects on birthweight and reduced growth up till three months of age were also found in relation to the sum of PCBs in cord blood and in maternal plasma. The PCB congeners 118, 138, 153 and 180 - most of which are phenobarbital-like - were determined. This is in accordance with studies of the children of mothers using phenobarbital, whereby lower birthweights are also described (51). It is a very disconcerting thought that the levels of these PCBs are so high that they have an effect on birthweight. The reduction in birthweight is approximately ninety grams in the group with median PCB levels of 0.41 **µg/L in cord plasma. This means that an infant with a** cord PCB level above the P90 (i.e. two standard deviations above the median), and **therefore having a PCB level of 0.80µg/l, has a** birthweight of 165 g less than that of an infant at the P10-level (42)! Thus, even at background levels commonly found in Europe, effects on birthweight and growth are obvious.
In the Zaandam study, liver size was measured by means of ultrasound. As related to the perinatal dioxin exposure, an increase in hepatic size was expected, contrary to the trend towards a smaller size found at two weeks of age. Between two and eleven weeks of age, the liver increased in size, more so in the higher exposed babies than the lower, and was the same for the two groups by eleven weeks of age (34).

Effects of faulty imprinting

During the critical perinatal period, environmental influences like dioxins and PCBs can disturb hormonal and enzymal activity setpoints. This may result in functional developmental disabilities in later life. During the first trimester all neurons in the brain are formed. Yet, it is during the second and third trimester, especially around thirty weeks gestational age, that the growth and development of the brain takes place, characterised by the forming of dendrites connecting the neurons, and by the start of glial myelinisation.
Structures in the brain necessary to process visual and auditive signals, for instance for language development, are then formed. This development proceeds, albeit somewhat slower than prenatally, during the first year of life, and still slower up till adolescence.
During pregnancy, the developmental process depends largely on hormones. For instance, testosterone is necessary around the thirtieth week of pregnancy for the typical male brain development, characterised by good visuo-spatial abilities. Lowering of the testosterone levels, for example as a result of an enhanced prenatal liver metabolism, causes impairment of the visuo-spatial abilities later in life (54). This is seen in the children of mothers using anticonvulsant medication during pregnancy. Therefore, long-term follow-up studies are essential to effectively relate background exposure in the perinatal period to health problems later in life.

Psychomotor development
In a North Carolina study, hypotonia and hyporeflexia in relation to prenatal exposure to PCBs were already detected in the neonatal period, shortly after birth (52). During infancy the higher exposed children exhibited developmental delays in gross motor function (53). In the children of mothers ingesting PCB-polluted fish from Lake Michigan a poorer visual recognition memory (Fagan Test) was associated with increasing prenatal PCB exposure. The levels of PCBs in the Michigan study were only slightly above U.S. background levels and comparable with Dutch levels.
The Zaandam group was studied at the age of two years and seven months. Signs of enhanced neuromotor maturation were found and it was hypothesised that this may be due to the thyroxine-agonistic action of dioxins (39).
The Rotterdam and Groningen group of children were studied at one year and six months, and at three years and six months. At one year and six months, the neuromotor development was negatively related to the sum of the transplacental PCB exposure. The congeners 118, 138, 153 and 180 were measured. Most of these PCBs are phenobarbital-like (55). Once again a negative relation was found with cognitive functioning and the sum of the phenobarbital-like PCBs measured in cord blood, at three years and six months of age (42). Overall cognitive functioning was negatively influenced, as was the verbal comprehension score. This finding is in accordance with the study of the Jacobsons, who noted a negative effect of prenatal exposure to PCBs on cognitive functioning, at the age of four years (48). Furthermore, at the age of eleven years, IQ-test scores were lower in the higher exposed children. Difficulties in verbal comprehension were elicited and the ability to concentrate was reduced in the higher exposed children. The latter were more than twice as likely to be two years behind in reading skills and word comprehension (56).
Similar attention and verbal IQ problems have been detected in children prenatally exposed to anticonvulsants. Negative effect on psycho-sexual development and reproductive performance were also detected in the latter group (54).
Long-term follow-up studies, into and through adulthood, are necessary, in order to detect abnormalities in sensitive endpoints like psycho-sexual development and reproductive performance.

Behaviour

Prenatal exposure to PCBs and furans was associated with negative behavioural effects amongst the intoxicated Yusho offspring. The children were apathic and uninterested (58). Monkeys exposed prenatally to PCBs exhibited a hyperactive behaviour during infancy. This was followed by inactivity at four years of age (57). The children of fish-eating mothers from Lake Michigan displayed reduced activity, with current body burdens of PCBs, at four years of age.

In the Rotterdam study, hyperactivity and slower mean reaction times were detected in relation to the current PCB-levels in the children at forty-two months of age. Attention during free play behaviour was reduced relative to cord and maternal PCB exposure (42).

Thus, we once again see that both prenatal and postnatal PCB exposure have an adverse influence on behaviour.

Immune system

We have already looked at the direct effects on white blood cells (vide supra). There are also subtle signs that the leucocytes may be influenced through a faulty imprinting, during the critical perinatal period. Weisglas-Kuperus et al. published their findings on low-level prenatal exposure to PCDDs and PCBs in their Rotterdam group: this exposure may influence the development of particular immune cell populations (38). Eighteen-month-old children exhibited an increase in T-cells (CD8+, amongst others) which persisted until the age of 42 months. However, at 42 months the increase was related to the sum of maternal PCBs and not to the I-TEQ dioxin (42). Additionally, amongst the forty-two month olds, a higher incidence of chickenpox was elicited relative to the sum of the maternal PCBs, and levels of antibodies to measles were lower in relation to the sum of the PCB levels in cord blood (42) It remains unclear why the relations are found with different exposures: some PCBs, others dioxins. Possibly the TEQ-concept is not a suitable method, or not sensitive (enough) for the endpoints studied. The fact that the relation was later found with PCBs, and not with dioxins, does not exclude effects of exposure to dioxins.

Conclusion

In studies of humans (vide supra) effects from exposure to background levels of PCBs and dioxins in the Netherlands have been demonstrated.

Negative effects on the immunity, psychomotor development and behaviour have been found, relative to dioxin exposure, expressed with help of the TEQ-concept. The effects relative to the sum of the PCBs, as measured in the plasma of the mother during pregnancy, in the cord blood at birth, and with the current PCB-levels are respectively neuromotor functioning, cognitive functioning and behaviour, and also immunity and middle-ear infections. The PCBs noted are mostly phenobarbital-like (congeners 118,138, 153, 180). Using the TEQ-concept in order to measure the amount of dioxins and dioxin-like PCBs may not be suitable for the endpoints studied. Is the exposure to the phenobarbital-like PCBs more important? The relation found with these phenobarbital-like PCBs is probably a causal relationship, the more so, because of what we know about the effects on humans of phenobarbital itself. However, aggravating effects of simultaneous exposure to dioxins cannot be excluded. Dioxins might very well play a role as well, which may become evident if another method to measure dioxin toxicity is used. Finally, it is also possible that dioxin-exposure is related to other (as yet unstudied) endpoints.

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BREAST CANCER INCIDENCE AND RESEARCH IN THE NETHERLANDS[1]

Maria P. Verheuvel, Monitoring Network for Health and Environment

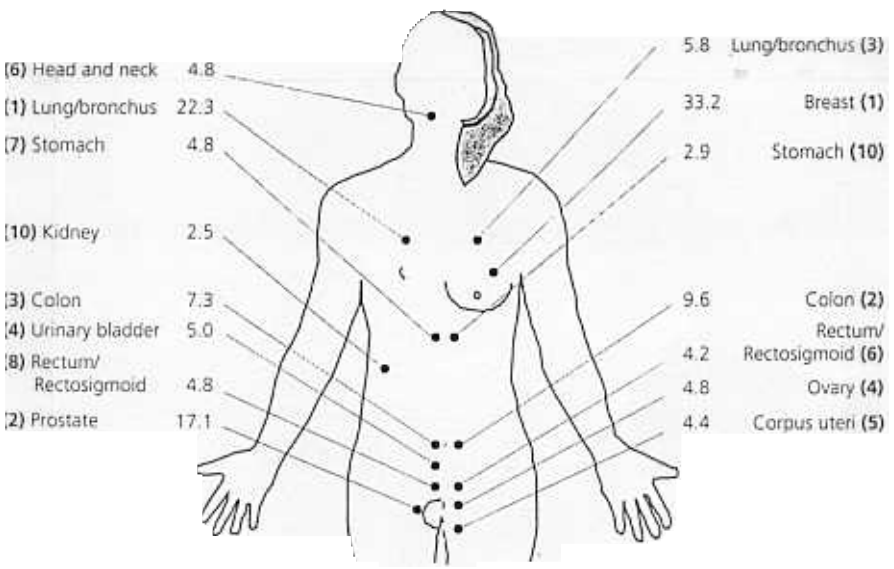
Abstract

From 1986 the Netherlands register all forms of cancer in a consistent uniform way. Breast cancer incidence shows an increase since 1989, which is probably a result of a national screening program for women aged 50-70. A longer time series of regional cancer registration however, shows an autonomous increase in all age groups long predating the screening program. It is argued that this increase is not attributable to better diagnostic methods, but to some unknown factor, quite possibly environmental pollution. A short review is presented of the state of affairs in Dutch epidemiological research into the causes, risk factors and possible environmental links to breast cancer. Some possible environmental factors contributing to the rise in breast cancer are discussed. Finally, the activities of the Monitoring Network for Health and Environment are presented and the possible significance of the network both for citizens and for identification of environmental dangers.

1. The Dutch Cancer Registry, Breast Cancer Incidence and Screening Programs

1.1 The national cancer registration

Since 1986 the Netherlands have had a national network for cancer registration. Numbers of every cancer type and mortality are accurately registered to get a good idea of the nature and extent of the cancer in the Netherlands. This registration is used to yield data for clinical and epidemiological research.



(5) Skin, other	5.0	3.2	Skin, other **(7)**
(9) Non Hodgkin's Lymphoma	3.4	3.1	Skin, melanoma **(8)**
		3.0	Non Hodgkin's Lymphoma **(9)**
Unknown primary	4.1	3.9	Unknown primary

Figure 1. The ten most invasive tumors in males and females in 1993. (Src: Netherlands Cancer Registry)

Prior to the age of 30 breast cancer is rare, but after age 40 it is the most frequent form of cancer in Dutch women. For this reason a national screening program was started for women between ages 50 and 70. They receive a written notification for screening and can be diagnosed for free (1).

[1] Paper, presented at the World Conference on Breast Cancer, July 1997, Kingston, Canada

Besides that, some cancer centers recently started a project for early breast cancer diagnosis. So all women can have a mammogram examination if they so desire and breast cancer can be detected at an early stage. The costs are approximately Hfl 95,- = $ 45,- (8).

Table 1. National figures for breast cancer incidence and total cancer incidence

Year	Breast cancer incidence	Total cancer incidence
1989	99,6	311,3
1990	105,1	315,3
1991	108,5	319,3
1992	115,5	333,1
1993	117.8	329,9

The Fifth Report of the Netherlands Cancer Registry (1993) records an increase in breast cancer incidence, which is explained as the result of the above-mentioned screening program, introduced in 1990

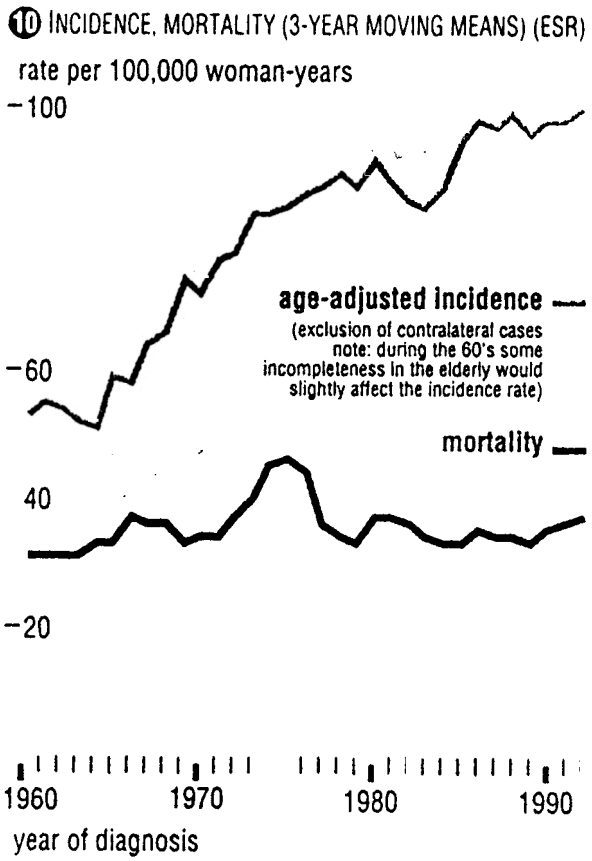


Figure 2. Incidence and mortality rate of breast cancer. (Source: Eindhoven Cancer Registry)

On the basis of incidence rates prior to screening, it was concluded that one out of every 10 women in the Netherlands will develop breast cancer during her lifetime and that one out of every 22 women will ultimately die of this disease.
For all types of cancer in women the age standardized incidence rates increased between 1989-1993, due to an increase in breast and lung cancer incidence and despite a decrease in stomach and gall bladder cancer incidence. In 1993 breast cancer in the Netherlands amounted to about one third of all female cancers: the percentage increased from 30.7 in 1989 to 33.2 in 1993 (Fig. 1).

In the same period the age standardized rates for all types of cancers in men generally remained stable. An increase in prostate and esophageal cancer incidence was compensated by a decrease in lung and stomach cancer incidence.
If the 1993 incidence patterns are maintained it is expected that 4 out of 10 men and 3.5 out of 10 women will develop some form of cancer during their lifetime.

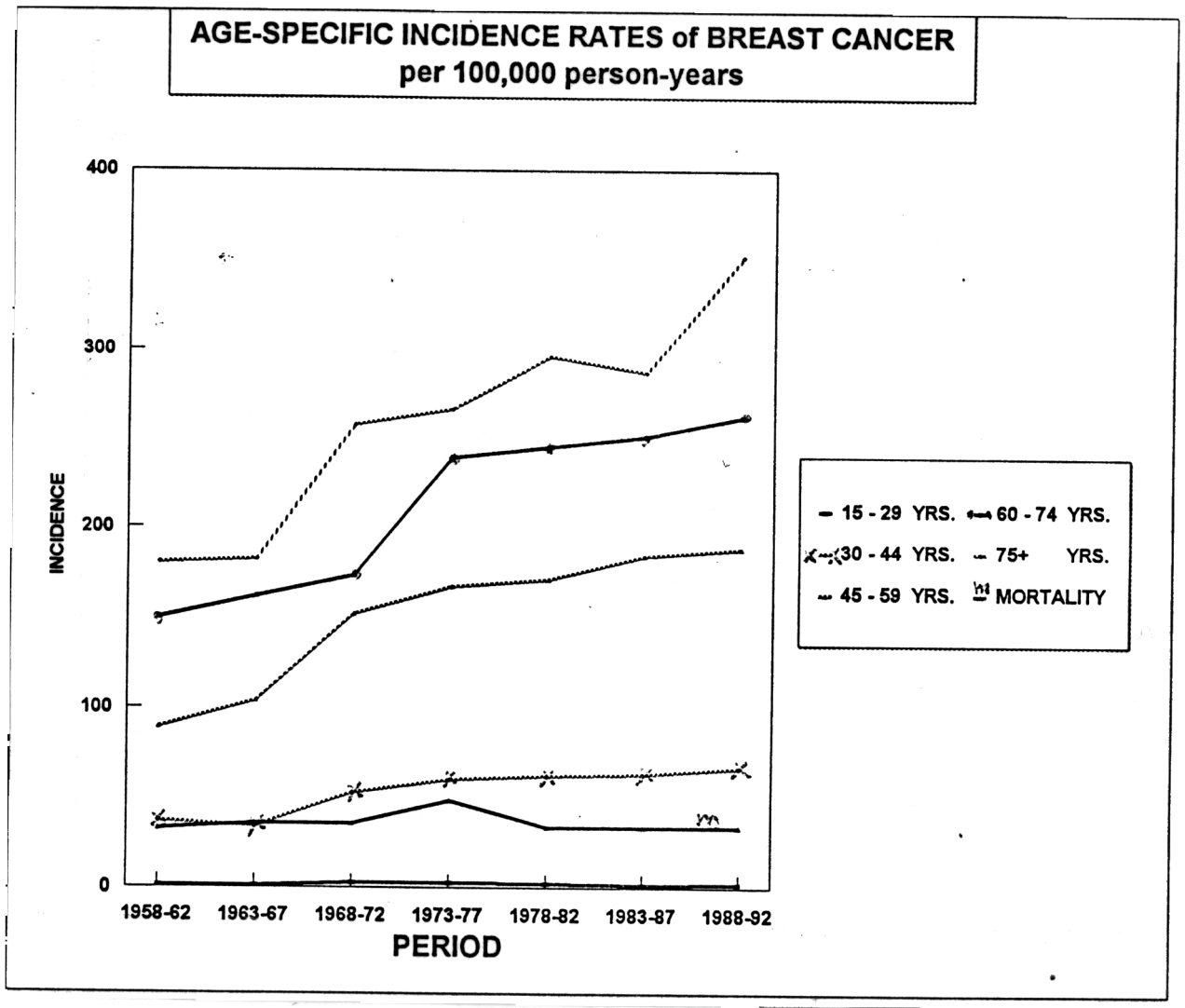


Figure 3. Age-specific incidence rates of breast cancer

Men have a higher total cancer mortality rate than women, which is particularly attributed to the bad prognosis of lung cancer (6).
The data of the Netherlands Cancer Registry indicate that the magnitude of the cancer problems in the Netherlands does not differ much from that of other countries in North-Western Europe and that the incidence of breast cancer among Dutch females is one of the highest in Europe (6).

1.2 The Cancer Registry in South-East Netherlands

The Eindhoven Cancer Registry (IKZ) started a cancer registration program as early as 1955 for the Southeast part of the Netherlands. The data over the whole period of 1958-1993 demonstrated a doubling up of the breast cancer incidence for women of all ages (Fig.2). The incidence of contralateral breast cancer increased a great deal both absolutely and relatively speaking. No increase in breast cancer for men was seen (2).

1.3 Discussion

Fig.3 shows the age-specific breast cancer incidence for different age groups from 1958 to 1992. The graphs show a sudden increase in breast cancer incidence between 1963 and 1977 for all age groups. (Source of the data (2))
On the basis of the average age of each age group the approximate year of birth for women corresponding to each point in the graphs was calculated. Generally it can be stated that after 1920 the economic circumstances in the Netherlands improved and poverty decreased. Women in the age group 75 + and the age group 60-75 spent at least part of their lives in these straitened circumstances. This also applies to those women in the age group 45-60 up to the midpoint of the graph (1973/1978). As the sudden increase in breast cancer incidence between 1963 and 1977 occurred in all age groups, something apparently independent of the life history must have happened. Even the age group of 15-29 shows an increase.
It is unlikely that the cause of the sudden rise in breast cancer incidence was a result of better diagnostic methods in that time, as is the case for the increase in older women in the period of 1983-1992. Information from the Cancer Registry states namely that diagnosis at a younger age first became a trend *after* 1975. The increase in the mortality rate near the end of the period of rising breast cancer incidence strongly indicates a real increase, not just a statistical artifact.
Taking into account that the increase concerned all age groups it could be concluded, that a certain common factor might be responsible, presumably in the period of 8-10 years before 1963 (latency time for breast cancer). It seems not unreasonable to suspect that the production after 1945 and the large-scale use of chlorinated hydrocarbons, even in households, could be a possible cause for the incidence increase in breast cancer. In the period after World War II people had no idea of the dangers of chlorinated pesticides. Children played ‘cops and robber’ with the spray gun and DDT-powder was applied lavishly on bedclothes and the heads of children against lice. (Information received from SGM, the Dutch Foundation for Health and Environment).
However, lifestyles and consumption patterns also changed during that period (use of more refined and fatty products). In addition, differences in detection of breast cancer might account for the sudden increase: in the early fifties only women of a higher social class were examined, while the accessibility of the specialist care was more limited. Moreover in the late sixties women older than 30 years started using the birth control pill, which contained a high dosage of estrogens. This, however, could not explain the increase in the three uppermost lines on the graphs: these women had already passed the menopause in the period of 1963-1978.

2. Research in the Netherlands into factors promoting the initiation and development of breast cancer

2.1 Epidemiological research

Research in the Netherlands into risk factors for breast cancer development has shown that there are many factors positively related to this phenomenon.
The following risk factors are mentioned:
1. Intrinsic factors like genetic characteristics, family predisposition, a history of benign tumors,
2. Sexual and hormonal aspects, which promote a higher natural estrogen exposure: early menarche, late menopause, late first born or no child at all, overweight,
3. Use of estrogens for birth control,
4. Exposure to X-rays.
(2, 6)

2.2 Research into the role of psychological factors

So far, two studies about the role of psychological factors are currently being carried out : the Leiden Study and the Nijmegen Study. The Nijmegen Study has concluded from a questionnaire (Self Assessment Questionnaire-Nijmegen) that four factors could be of importance. Two of these, not yet mentioned-above were the social economic status and anti-emotionality (4).

2.3 Research into the relation between food and breast cancer

At the University of Wageningen research was carried out into the possible role of food in the development of breast cancer, from an epidemiological perspective. On the basis of differences between countries and breast cancer incidence rates, it was hypothesized that the high incidence in the Netherlands could be partly attributed to a large intake of fats and a low intake of selenium. The results of the Wageningen survey do indeed support a positive relation between high intake of fat and breast cancer, independent of the type of fat. No relation with the intake of selenium could be demonstrated. There were indications that food rich in fibers and fermented milk products reduced risk. This might be related to the capability of healthy bacterial flora in the gut to break down estrogens.
The author concluded that food could play a role in the late promotion phase of breast cancer (5).

2.4 Research into environmental factors influencing breast cancer

Research at the University of Wageningen into phytoestrogens and breast cancer has just started. No research has been carried out yet into the relation of xenoestrogens from environmental pollution and breast cancer.
Various experts in the Netherlands are of the opinion, that it will be very difficult or even impossible to prove that environmental factors could be related to breast cancer development. For this they give three reasons:
1. Lack of data: nothing is registered with regard to environment and breast cancer.
2. Many factors influencing breast cancer incidence or development are already known. So far, no direct environmental agent has been identified. It is possible that environmental factors only indirectly or in combination influence the (very complex) process of carcinogenesis. This makes it even more difficult to demonstrate a relationship.
3. There are practical and ethical reasons precluding research into the role of environmental degradation.
Nevertheless some governmental health officers and breast cancer experts are interested in the role of environmental factors, especially since not all breast cancers can be attributed to the known risk factors.

3. Pollution of breast milk in the Netherlands

Recent research (1996) showed that breast milk in the Netherlands contains 30x more PCB's and dioxins than cow's milk. In fact, the amount of pollution in breast milk is far higher than the amount allowed for cow's milk (3). However, this research concerned child development, not breast cancer. But it should be taken into account that breast tissue, which has a large percentage of fat is exposed to this pollution as well and accumulates it. And because of its potential to be active and change rapidly (cell division, production of proteins and fatty acids) it will be vulnerable to intoxication.

4. Xenoestrogens and the increase in breast cancer incidence

Fig 4 shows the age-specific incidence rates of testis cancer. (Source of the data: (2)) After the period 1973/77 a large increase in incidence is seen in the youngest age group (15-29 years). Compared with the breast cancer incidence graphs in fig.3, it is evident that the increase in testis cancer incidence just starts after the period of the sudden rise in breast cancer incidence with the mortality peak at the end. The women in that period belong to generation of the mothers of these boys with testis cancer.This could support the evidence that xenoestrogens have been playing a certain role.

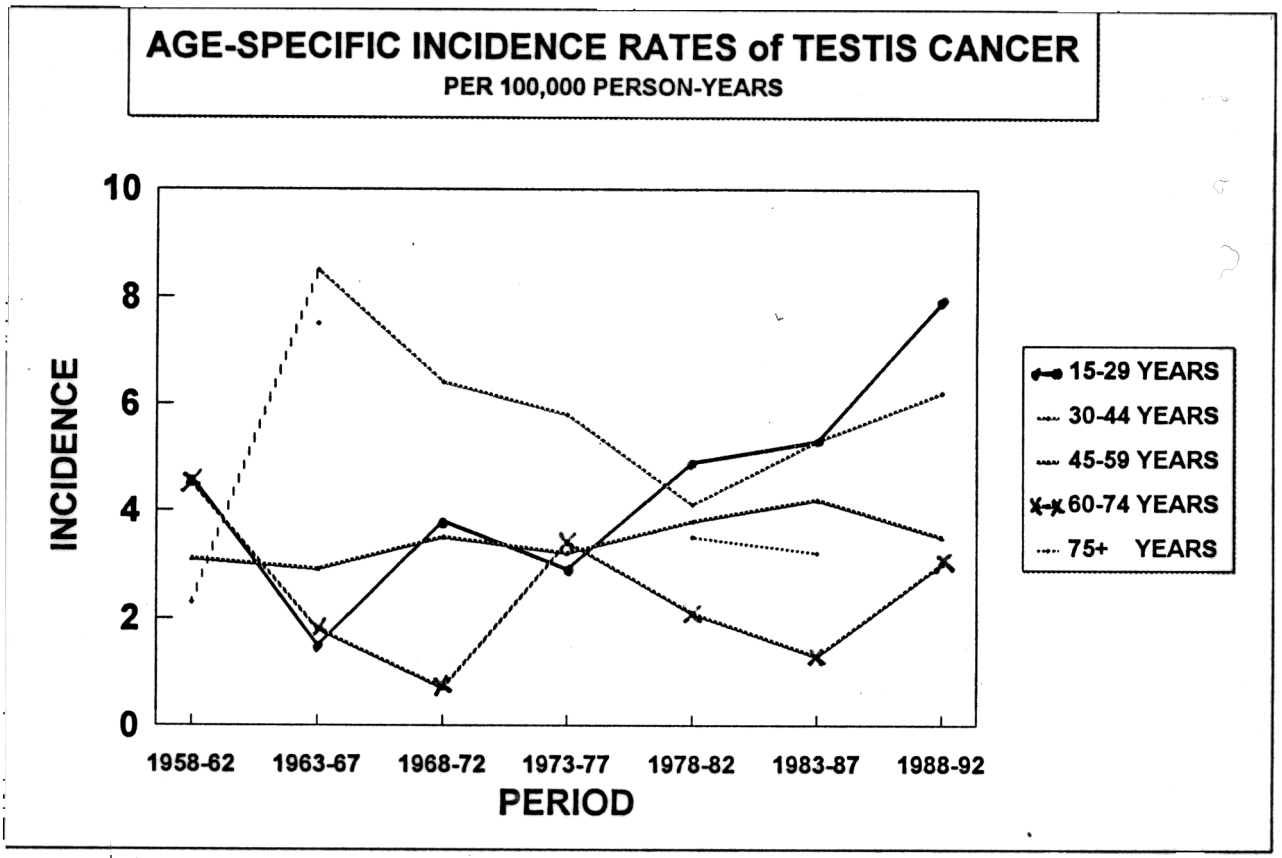


Figure 4. Age-specific rate of testis cancer

Tables 5 and 6 give an overview of incidences of all cancer types for male and females in the period 1963-1992 (2). The increase in colon cancer in both sexes and in prostate cancer in man is striking. Colon and prostate cancer can be related to food quality (7), so it seems reasonable that also food could be a factor in the Netherlands influencing breast cancer incidence. It must be kept in mind, however, that food and xenoestrogens are interrelated in several possible ways.

5. The Monitoring Network for Health and Environment

5.1 Methods

The Monitoring Network for Health and Environment is a non-profit, non-governmental organization, which registers environmentally related health complaints. The health complaints and environmental factors are coded and saved in a national database. Researchers and institutes can use these data to gain ideas for further research. The database has no pretension of epidemiological significance,

but the data are registered as precisely and as uniform as possible. The data provide signals demonstrating *people's perception* of environmental pollution.

Table 5. Trends in females

1b AGE-ADJUSTED INCIDENCE OF AND MORTALITY FROM CANCER PER 100,000 PERSON-YEARS (WSR), ACCORDING TO TUMOUR-SITE

Females	period of incidence			period of mortality		
Tumour site	1963-72	1973-82	1983-92	1963-72	1973-82	1983-92
Salivary gland	0.7	0.6	0.2	0.1	0.1	0.1
Tongue	0.3*	0.2	0.7	0.4	0.1	0.2
Mouth	0.1*	0.4	0.9	0.1	0.1	0.2
Pharynx	0.4*	0.4	0.6	0.1	0.2	0.4
Nasal cavity	0.1*	0.2	0.2	0.1	0.1	0.1
Larynx	0.2	0.3	0.6	0.2	0.1	0.2
Oesophagus	0.4*	0.5	1.0	0.9	0.7	1.1
Stomach	10.3*	10.7	8.0	17.7	10.8	6.7
Colon	14.7	17.8	18.9	13.4	12.9	11.3
Rectum	8.6	9.7	9.7	5.1	4.5	3.4
Small bowel	0.3	0.5	0.4	0.4	0.3	0.5
Liver and Biliary tract**	5.3*	4.6	3.3	7.2	4.5	3.3
Pancreas	2.5*	3.8	4.2	4.9	5.3	5.7
Lung	2.3*	4.9	9.5	3.1	4.8	8.3
Pleura	-	0.1	0.2	0.1	0.1	0.3
Mediastinum	0.1	0.1	0.2	-	-	-
Bone	0.7	0.5	0.5	0.6	0.4	0.3
Soft tissues	1.6	1.3	1.3	1.2	0.9	0.7
Melanoma	2.7	4.0	7.1	0.8	0.9	1.4
Skin SCC & Lip	3.5	3.5	4.6	0.6	0.3	0.2
Breast	48.5	67.3	74.0	24.1	28.7	25.9
Cervix uteri	12.5	7.1	6.0	7.2	3.1	2.5
Corpus uteri	10.5	10.3	10.7	1.7	2.3	2.2
Placenta	0.4	0.1	-	0.1	0.1	-
Ovary	9.7	11.2	10.8	9.6	8.8	7.3
Vagina and Vulva	1.7	1.5	1.0	0.8	0.9	0.5
Bladder (invasive)	2.6*	2.6	3.6	2.3	1.5	1.8
Kidney	3.0	3.7	4.4	2.7	2.2	2.9
Central nervous system	1.8*	2.2	3.1	2.0	2.0	2.1
Thyroid gland	2.0	1.6	1.9	0.6	0.5	0.4
Suprarenal glands	0.1	0.2	0.3	-	0.2	0.2
Hodgkin's disease	1.9	1.7	1.3	1.1	0.7	0.3
Non-Hodgkin's lymphoma	2.4	3.4	5.4	1.8	2.0	3.0
Multiple myeloma	1.3*	2.1	2.4	1.9	1.6	2.1
Leukaemia**	3.2*	3.8	3.3	4.5	4.1	3.8
Unknown primary tumours	7.0*	8.4	9.3	8.9	7.2	8.3
All sites	163*	191	210	126	113	107

* possibly too low ** combined in ICD-7 sources: Eindhoven Cancer Registry (IKZ) and Central Bureau of Statistics (CBS)

Table 6. Trends in males

1a AGE-ADJUSTED INCIDENCE OF AND MORTALITY FROM CANCER PER 100,000 PERSON-YEARS (WSR), ACCORDING TO TUMOUR-SITE

Males	period of incidence			period of mortality		
Tumour site	1963-72	1973-82	1983-92	1963-72	1973-82	1983-92
Salivary gland	0.7	0.8	0.5	0.4	0.3	0.2
Mouth	0.8*	0.9	1.8	0.2	0.4	0.6
Tongue	0.5*	0.6	1.1	0.4	0.3	0.6
Pharynx	0.7*	1.0	2.3	0.6	0.6	1.0
Nasal cavity	0.5*	0.5	0.6	0.3	0.3	0.1
Larynx	4.0	5.7	6.8	2.3	2.3	2.1
Oesophagus	1.4*	2.4	3.3	2.7	2.6	4.4
Stomach	21.6*	21.1	18.1	30.4	20.1	14.8
Colon	12.5	17.7	23.7	10.9	14.0	15.3
Rectum	13.6	15.5	16.6	10.0	8.6	6.7
Small bowel	0.4	0.5	0.8	0.2	0.4	0.6
Liver and Biliary tract**	3.8*	4.4	3.7	4.6	4.5	3.8
Pancreas	4.0*	6.4	6.3	6.6	8.1	8.4
Lung	60.0*	87.5	84.6	57.8	88.4	82.7
Pleura	0.1*	0.7	1.0	0.3	1.0	1.2
Mediastinum	0.3	0.1	0.4	0.1	0.0	0.2
Bone	1.1	0.9	0.8	1.0	0.6	0.4
Soft tissues	1.4	2.3	2.6	1.4	1.2	1.2
Melanoma	1.9	2.6	4.7	1.1	1.2	1.7
Skin SCC & Lip	11.7	11.5	13.3	0.8	0.6	0.5
Breast	0.4	0.5	0.5	0.3	0.5	0.1
Prostate	19.4*	25.9	32.3	12.2	14.0	15.5
Testis	2.7	2.7	3.4	0.7	0.9	0.3
Penis	0.7	0.8	0.8	0.3	0.2	0.2
Bladder (invasive)	9.3*	16.7	16.4	5.3	6.7	6.1
Kidney	5.1	7.6	8.3	3.7	4.7	4.6
Central nervous system	2.5*	3.8	4.0	2.3	3.6	3.7
Thyroid gland	0.4	0.9	0.7	0.3	0.5	0.3
Suprarenal glands	0.3	0.2	0.3	0.2	0.1	0.2
Hodgkin's disease	2.8	2.1	1.9	1.6	0.9	0.5
Non-Hodgkin's lymphoma	3.2	5.9	9.2	3.0	3.7	5.1
Multiple myeloma	2.6*	2.8	3.2	2.6	2.6	2.7
Leukaemia**	4.6*	5.9	5.9	5.7	6.0	5.6
Unknown primary tumours	6.7*	9.6	14.6	17.1	9.5	13.1
All sites	202*	269	294	187	210	205

* possibly too low ** combined in ICD-7 sources: Eindhoven Cancer Registry (IKZ) and Central Bureau of Statistics (CBS)

In addition, these data can contribute to the increase of the insights in connections between health and environment. Such relationships are always disputable and almost impossible to validate. The more research results from different disciplines (epidemiological, toxicological, physiological etc.) point at the same direction, the more readily possible relations will be detected and acknowledged. Similar complaints from independent parties, for instance health problems related to low frequency noise, waste incineration, high voltage lines etcetera, will provide impetus for further research and appropriate measures.

5.2 Social significance

When the data bank shows certain signals, as was the case with low frequency noise, waste incineration, high voltage lines etc, citizens are in a stronger position to request a research or an extension of the research. It happened already that an industrial plant was closed because of the action of the citizens, assisted by the network members. The monitoring network helps to empower people and acts as an independent third party criticizing existing environmental evaluation reports.

5.3 Many registrations make the database more reliable

The value of a database depends on quality, but also on *quantity*. More data can be obtained when the period is longer and the area larger. *It would be ideal when several countries started to work in the same way, with the same codes***.** Then it will be easier to compare patterns in health complaints possibly caused by the same environmental factor(s) in different countries.

5.4 Breast cancer registrations.

Breast cancer is not a disease, which is easily connected with environmental factors by laymen. Nevertheless some women attributed their breast cancer, or the high incidence in their region to environmental factors. Most of them suspected factors related to waste incineration or landfills, often together with emission from coal burning power stations or road and air traffic. Also some registrations came from the bulb flower culture, extended regions where high concentrations of chlorinated and other pesticides are used. In that culture pesticide use is very high compared to vegetable and fruit cultures. One caller suggested that his testis cancer and his mother's breast cancer originated from pollution of the bulb flower culture region, where they lived formerly. (Source: Monitoring Network for Health and Environment: National Databank).

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Health problems in the vicinity of waste incineration, industry and traffic

A case from the Monitoring Network for Health and Environment

Thea van der Wal, Monitoring Station Gelderland

The Netherlands are a densely populated and highly industrial country, rapidly running out of space, for example for landfills. In order to get rid of the waste, the Dutch government took to promote waste incineration in the 80's and the early 90's. It seemed the most feasible solution, but nowadays more and more officials and citizens doubt the wisdom of that decision. In the province of Gelderland two new incinerators of great capacity were built near the cities Arnhem and Nijmegen, with a distance in between of about 20 kilometres.

First reports of health problems: the village of Weurt

When the Provincial Monitoring Station of Health and Environment in the Province of Gelderland (MS Gelderland) started its activities in June 1994, some of the first people to call them were villagers from Weurt near Nijmegen. The secretary of a local action group told the co-ordinator of MS Gelderland that the village had a long history of fighting the industry and waste disposal of the city of Nijmegen. His young son had died of cancer in the middle of the 80's and he suspected that the nearby industry and fly ash from an electricity plant and/or the incinerator could be responsible. Weurt is a small village and the last years the people had been alarmed as they saw more and more relatives and neighbours become sick or even die of different sorts of cancer, many of them below 50 years and some of them quite young. Apart from that, many people complained of eye irritation and respiratory problems: coughing and tightness of the chest.

The local action group invited the co-ordinator of the MS Gelderland to a meeting on these problems in order to register health complaints. She registered about 90 persons from the approximately 300 attendants.

Physicians at a local health-clinic later told they had become apprehensive too, and carried out a small research. But they didn't know how to proceed and were afraid to disconcert the population even more without solving their problems. So they left it alone.

Authorities respond with public hearing, new actions in Nijmegen

In the meantime the problem had reached the media and the city council had ordered the Health Service to start an investigation.

In fact everybody thought they wouldn't really find something. A local sports hall was hired to inform the population of the results of the investigation and the event was shown live on the local television. But the shocking fact was that the researchers really did find something! They found that for the men a significantly more than expected number (130%) had cancer. For the women too cancer incidence was higher than expected, but not significantly. This alarmed the local politicians and they promised to do whatever possible to get more research done and to take appropriate measures.

Then also inhabitants of the nearby city of Nijmegen started to ventilate their anxiety and indignation. In fact some Nijmegen neighbourhoods were even more prone to pollution than Weurt under the most prevailing wind direction. A second health investigation confirmed those suspicions. In these areas and also in the nearby village Beuningen the cancer-incidence was higher than expected. And it appeared that apart from cancer and respiratory problems, also rheumatism and related diseases (e.g. muscle-dystrophy) as well as birth and postnatal complications were above average. Environmental research indicated high amounts of cadmium, chromium and beryllium. Like in Weurt, people in Nijmegen had organised themselves. Four environmental groups are active in different affected neighbourhoods and partly they work together. They are in contact with the Monitoring Network of Health and Environment for exchange of information and sometimes for technical support. All of them criticised the reports and demanded better research. And even more urgent they asked for measures to reduce emissions. They asked to apply the Precaution Principle and put a ban on all questionable materials.

The Commission

The government made a solid proposal tot attack all the problems involved and installed a commission of national scientists and politicians to advice them. This commission heard the local groups and industrials.
The provincial co-ordinator of the Monitoring Network was also present and reported the numbers and kind of complaints she had received. She also communicated the comments local people gave on the passed events, which were not too flattering, but worth considering.

- People don't want to be a bore or a threat to their neighbours and to officials. They don't want to face hostility, especially when they already feel uncertain.
- They are afraid to mention their suspicions because the consequences can be unpleasant. They might have to move, or lose their job, or see the value of their house go down.
- They may feel responsible or even guilty about the disease of their child or partner.
- Job availability is generally considered more important than environmental inconveniences.
- People maybe too sick or too miserable to bother to telephone. They may be depressed and think it does not help anyway.
- A lot of people do not yet know the Monitoring Network

The commission was impressed by the technical and juridical know-how of the action groups and the MS Gelderland and by the widespread mistrust of the spokesmen and the people they represented. But the generally displayed lack of concern and input of the factory-owners, were more than a bit disappointing to the commission. On invitation from the action groups they visited the industrial sites and the affected neighbourhoods.
The commission took two months for consideration and then made the following recommendations

1. Further health-investigations
2. The input of best technical means in the permit-policy
3. Application of the bubble concept to minimise the accumulation of different emissions
4. A care-obligation for the local responsible government
5. A communication procedure to ensure effective involvement of the inhabitants.

The local and the provincial government have yet to answer to those recommendations.

The Arnhem case: dioxins and miscarriage

In the surroundings of Arnhem things went quite differently. A woman, who lived opposite the incinerator, started to worry when she found that her sheep gave birth to dead or dying lambs, got bald patches on their furs and leg disfigurements. She blamed the incineration but was met only with denials and obstruction from the officials she contacted.
A sheep she sent for examination never arrived at the lab of the regional inspection. As she was very determined to get to the bottom of this matter, she continued to search and finally met a researcher at the University of Amsterdam. He discovered a more than average dose of dioxin in the fat and kidneys of the sheep. And when she had a baby (after a miscarriage) he examined her blood and the placenta.
He found a more than average amount of certain dioxins. This case was brought on the national television through interference of the Monitoring Network for Health and Environment. In that area also the Local Health Service had investigated the problem and started a follow-up investigation. They looked for cancer, respiratory problems and rheumatism like diseases. They found higher than averages for all factors, but none of them significant. A local environmental group criticised the reports and a second opinion-report from the Wageningen University confirmed the low quality of the environmental research. Other local people called the Monitoring Station to express their anxiety and indignation and to have their health complaints registered. Another television programme linked the two cases and the problems now are well known on the national level. The incinerator was partly closed down for a time for repairs to one of the chimneys. At the moment it is not clear what will be done in this area. The joint action groups have contacted the Provincial Environmental Federation, the Provincial Monitoring Network and some officials to discuss a follow-up.

In this all the role of the network is to facilitate, but not initiate activities. In cases like this the local people must have the motivation to tackle their own problems. Our network supports them, encourages them, brings them into contact with each other, helps them with advice on procedures and second-opinion etc.

What can we learn from the events in this area?

1. Incineration related pollution is found in industrial and traffic-dense areas and therefore is difficult to identify and research
2. Health complaints do only occur after a certain period. Most of the time they are complex and difficult to relate to the environment. Exposure and amount of immission are difficult to measure. The norms that have been developed for acceptable emissions are not based on health or environment, but on economic deliberations. Especially young and unborn children are vulnerable. In addition, there is not enough attention for the effects of accumulation and long-term exposure. Recent research for example indicates damage to the immune system.
3. The main cause of the problems is that health and environment are not considered in planning and allocation, that permits are old or non-existing, incomplete and generally inadequate, and that control on implementation is lacking or insufficient.
4. The permit-policy of allowing amounts of emission per factory is short-sighted. Necessary is an overall-picture of possible emissions and know-how about cumulative and synergetic effects.
5. It is not sufficient to examine the theoretical emissions that are listed in environmental permits. Background concentration should be considered. Measurements must be taken on the right spots, places and in the right circumstances. Right for honest

results, not for the factory-owners. Illegal emissions, mistakes in the working-process, unreported accidents and so on must be taken into account.

6. Industrialists have found a new answer for the waste problem: burn it instead of coal or oil (cheap and good for reduction of CO_2) or rename it as raw material and use it in building (cheap and 'clean'). This is a worrisome development because the permits for those processes and products are less strict and so dangerous emissions are out of control.
7. To picture the real health situation, use can be made of all kinds of registration: hospital admittance's, local physicians' administration, school and work absenteeism, midwife-dispensary and veterinary administration, plant life and environmental situation, demographic information and so on.
8. Reports that do not mention the problems the citizens experience, that do not recognise their worries and emotions are not written to solve their problems and so are not trustworthy.
9. Citizens are experts in their own right on the relation between the environment and their health. The information supplied by local people is a most reliable basis to start research on.

   10. To continue to have the trust of the community, a procedure is necessary in which the inhabitants are actively involved. They know the kind of impediments and health complaints that are suffered and they see what happens inside and around the factories.
11. A way to quickly regain the trust of the people is to take measures: close down a factory, refuse a permit, or impose a fine.
12. Concerned citizens know more than government officials and politicians. They are better motivated and want the real answers. They also offer practical and creative solutions because they know all the circumstances.
13. Sometimes contact with industrials is more effective than talking with government people. They are interested in results, not reports.
14. Blaming the problems on individual lifestyle offends the public and should never be mentioned unless it can be proved.
15. For every person who contacts a Monitoring Station of Health and Environment there are maybe ten or twenty who have the same problems bur do not phone or write.

SECTION 3

POLICY INFORMATION ON CAIRO+5

WEDO CAIRO+5 BRIEF

NOVEMBER 1998

Towards the Five-year Review of the Programme of Action (POA) adopted at the United Nations International Conference on Population and Development (ICPD) in Cairo, 1994.

BACKGROUND

The world's governments will gather in New York City at the United Nations General Assembly from June 30 - July 2, 1999, for a special session to review implementation of the Programme of Action of the International Conference on Population and Development, adopted by consensus in Cairo in September 1994.

Despite significant gains made at the national level to advance the Cairo goals, growing economic uncertainties worldwide pose serious challenges to further progress. Adverse macroeconomic trends, financial crises, and the increase in poverty and marginalization as a result of globalization and privatization policies have slowed the momentum towards implementating the Cairo commitments. The magnitude of the AIDS pandemic, questions of migration and consumption, the resurgence of right-wing forces—especially anti-abortion forces—form part of the sobering context for the Cairo+5 review.

UN PROCESS

The main document to be negotiated by governments for the ICPD+5 review is the draft report of the UN Secretary-General. An annotated outline of the report was made available in July to governments, who were asked to submit their comments by mid-August. The UNFPA is in the process of compiling this draft report. The draft will be negotiated during the March session of the UN Commission on Population and Development (CPD), which will also serve as a PrepCom for the special session. The final report will reflect:

- A series of Roundtable and Technical Meetings that were organized by UNFPA during 1998
- Consultations organized by UN regional commissions and agencies
- The outcome of an International Forum slated for the Hague, Netherlands, February 8-12, 1999
- Report of the UN Population Division's five-year review and appraisal of POA implementation.
- Country views and assessments, including responses from 128 countries to a UNFPA field inquiry in mid-1998.

The final report is expected to be a concise 16-18 page document comprising six sections: Introduction; Population and Development Concerns; Gender Equality, Equity and the Empowerment of Women; Reproductive Rights and Reproductive Health; Partnerships and Collaboration; and Financing. Each section will include a brief analysis of progress at policy and program levels, problems and constraints, and new areas or concerns that have emerged since ICPD. Each section will make proposals for future actions based on this analysis.

POLITICAL CONTEXT

Although governments have adopted UN GA resolution 52/188—which states there will be no renegotiation of the agreements contained in the Cairo POA during the five-year review process—women and NGOs should be prepared for heated discussions around such controversial issues as adolescent rights to reproductive and sexual health education and services; maintaining the Cairo consensus on abortion and diverse forms of the family; and securing a renewed commitment to financial resources agreed in Cairo.

To ensure effective advocacy at the international level, NGOs should seek to influence their governments' analysis of progress, problems and emerging areas of concern, and country proposals for future actions, prior to the March CPD session. At the CPD, intergovernmental negotiations will take place on the draft report to be adopted at the UN General Assembly special session.

Below we set out the key concerns that have emerged in the review process, utilising the structure of the annotated draft outline of the Report. Our assessments are based on views expressed by governments at the General Assembly Second Committee meeting (UN headquarters, New York City, October 29, 1998), interviews conducted by WEDO with various government representatives, some donor and UN agency perspectives, and proposals for NGO advocacy.

KEY CONCERNS

I. Introduction

Governments record considerable progress in reformulating national programs, improving partnerships, and affirming rights-based approaches. They also note that progress has been mixed, with many countries hampered by adverse macro-economic trends. Cost-recovery mechanisms and reductions in

"The target of investment of $17 billion by the year 2000 set at the Cairo conference needs to be re-examined. There is reason to believe that the real investments needed in order to reduce the high level of maternal mortality are significantly higher ... We should also keep in mind the broad agenda of poverty reduction, empowerment of women and investment in the social sector."

NORWAY, IN A STATEMENT TO GENERAL ASSEMBLY SECOND COMMITTEE

ODA are seriously threatening some of the recent gains. Further, gender inequality persists especially in the critical areas of sexual and reproductive health.

II. Population and Development Concerns

Despite considerable progress made by countries in integrating population strategies into overall plans for social and economic development, the objectives of the POA are far from being realized.

The increase in poverty worldwide, especially among minorities and women, is cited by rich and poor countries as a key constraint impeding implementation of the POA. Countries such as China, Korea and Indonesia have raised concerns about new difficulties faced by many countries due to massive world population growth, economic regression triggered by financial turmoil in the context of globalization, and an increase in the number of people living in poverty.

Emphasis is still being placed on the need for population stabilization as a prerequisite for sustainable development, with reproductive health policies being central. The European Union, for example, is of the view that population stabilization will depend largely on the continuation of political support to the Cairo POA, and that more moderate demographic development can indeed be achieved on the basis of reproductive freedom for women, men and adolescents.

Although environmental degradation is a general concern, patterns of industrialization and consumption and development that contribute to diseases and increase health risks are yet to be addressed by the majority of countries. The few exceptions include the United Kingdom and New Zealand. However, the health impact of environmental conditions is being increasingly documented by NGOs and needs to form an integral part of the Cairo+5 advocacy debate.

III. Gender Equality, Equity and the Empowerment of Women

A number of governments, including New Zealand and China, have highlighted the persistence of gender inequality as a major constraint in implementing the Cairo POA. Privatization trends in countries worldwide, have resulted in greater numbers of female school dropouts and massive unemployment among women. As governments undergoing structural reform trim public sector services and introduce cost recovery mechanisms, women are first in the line of fire, losing jobs and access to healthcare. Governments in South Korea, Indonesia, and other Asian countries are recognizing the gender implications of the ongoing financial crisis. Governments acknowledge that social safety nets to address inequities and meet basic needs, especially of women, are non-existent, too narrowly focused, or disintegrating.

Cost recovery mechanisms such as user fees, which are seen by governments as a means of improving efficiency, are impeding access to essential health services in many countries, especially of the poor and women.

"Economic regression triggered by economic and financial turmoil in the context of globalization as well as the increase of people living in poverty have brought new difficulties. Serious shortages of resources and weaknesses in capacity-building are two formidable problems that plague many developing countries and have become serious obstacles to the implementation of the Programme of Action"

CHINA IN STATEMENT TO GENERAL ASSEMBLY SECOND COMMITTEE

IV. Reproductive Rights and Reproductive Health

Critical issues here are abortion, maternal mortality, the integration of HIV/AIDS services, and greater access for adolescents to sexual and reproductive health services. Norway has pointed out that while significant progress has been made in providing reproductive services of good quality, there is a need to examine qualitative aspects of these changes to assess the extent to which they take a holistic approach as against simply adding specific services. Despite advances in providing adolescent services, the extent and appropriateness of these programs continue to be contentious.

Governments close to the Vatican remained unusually silent during the UN GA Second Committee discussions. However, indications are that certain members of the G-77 and China, especially those allied to the Vatican, can be expected to reopen issues related to the family, reproductive and sexual rights and adolescent services—notwithstanding the UN GA resolution against seeking to renegotiate the POA.

Despite progress in several nations to improve post-abortion services and care and reduce the health impact of unsafe abortions, abortion rights are mired in fundamentalist controversy and/or lack of services in most countries. WHO estimates there are 20 million unsafe abortions in developing countries each year, accounting for 13 percent of all maternal deaths.

Government proposals for future actions tend to focus on family planning services as a means to prevent unwanted pregnancies and maternal deaths. NGOs need to be especially vigilant here and ensure that governments address the consequences of their abortion policies by providing post-operative care for women who have undergone the procedure, even in countries where it is illegal. The POA urges all governments "to deal with the health impact of unsafe abortion" and states that "In all cases, women should have access to quality services for the management of complications arising from abortion." (Para 8.25)

Donor nations have called attention to the fact that maternal mortality continues to be an area where far too little progress has been achieved. There is now little doubt that the ICPD target to halve 1990 levels of maternal mortality by the year 2000 is unrealistic given the problems of measuring mortality levels, the lack of skilled personnel and services, such as post-partum and emergency obstetric care and life-saving treatments at delivery, and most significantly, the lack of serious political or financial

hazards women face during childbirth.

The magnitude of the AIDS pandemic, which is devastating large parts of Africa, is a dominant concern among donor and developing countries alike with the G-77 highlighting this as a key issue. The 1998 world population estimates by the UN Population Division emphasizes the demographic, social and economic implications of AIDS and shows the impact of the disease in 34 countries. But absent from all discussions is an analysis of the gender implications of AIDS.

The World Bank has pointed out that as health sector reform continues in countries worldwide, the challenge lies in ensuring that children and reproductive health are essential components of policy objectives. As donors and governments pursue efficiency in health systems, a critical issue that needs to be addressed is how far reform measures affect access by the poor and women to affordable and quality services.

V. Partnerships and Collaboration

Despite the rhetoric of NGO/government partnerships, country by country, realities vary enormously. Donor agencies and the World Bank have noted government restrictions on NGO involvement as a factor impeding participatory approaches between donors, NGOs and governments at country level..

Donor agencies and countries see closer collaboration with the private sector as being instrumental to delivering services. Governments cite insufficient NGO and institutional capacity as a constraint, and are increasingly seeking private sector involvement in service provision. The U.S., for example, has called for a greater role of the private commercial sector to meet the demand for increased resources for components of the POA. Here again the social and human implications of increased private sector involvement, and the imposition of fees for formerly free or subsidized public health services, are not a primary concern. NGOs must place the impact of cost recovery mechanisms on access to health services high on the advocacy agenda.

UN specialized agencies such as UNICEF and UNDP are integrating health and reproductive health and rights into a broad development agenda, while at the same time acknowledging the overwhelming challenges of the crisis in development assistance.

VI. Financing

Countries report that the lack of financial resources is the single greatest constraint in implementing ICPD goals. China, Norway, New Zealand and the U.S. have highlighted the serious shortages of resources and weaknesses in capacity-building that plague many developing countries and that have become serious obstacles to implementing the POA. Indonesia, current chair of the G-77, has already expressed pessimism about the outcome of the review on the question of increased financial commitments. Developing countries fear that they are unlikely to get anything more than a few resolutions on the funding issue given that the current global economic environment is not conducive to increased commitments.

In 1996 domestic financial flows worldwide were estimated at $8 billion, with most of it being spent in a few large countries. The least developed countries have been unable to generate even half the resources needed to implement national programs and will require substantial international assistance over the next several years to do so. International donor assistance crept up from $1.3 billion in 1993 to just over $2 billion in 1996—barely a third of the $5.7 billion target agreed to in Cairo as the donor component of the $17 billion total needed by the year 2000. International assistance flows were at a record low in 1997-98. The U.S., one of the biggest donors, has acknowledged that political pressures have made it difficult to mobilize all the resources needed for full implementation.

While developing countries have almost met their commitment, industrialized nations are paying only a fifth of the total global effort, instead of the third agreed to at Cairo. Some donor nations are now taking the view that the financial target of $17 billion, was a reflection of the magnitude of the challenge rather than a commitment. Norway, in particular, has said that target needs to be re-examined as there is reason to believe that real investments needed to reduce the high level of maternal mortality alone are significantly higher. The donor countries are expected to call attention to the problems of population growth and urge developing countries to provide more resources.

The real challenge at the review, says the World Bank, is not to get donors to line up and pledge resources, but to see where and how the existing resources are being used. Bank officials say that resources in and of themselves are not the problem, rather it is the capacity of systems to use them effectively. Women and NGOs need to be aware of these approaches to be able to develop critiques and advocacy positions on the resources debate.

Key Government Groupings

Group of 77
Mission of Indonesia to the UN
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Office of the Chairman of G-77
P.O. Box 20, New York, NY 10017 USA
Tel: (1) (212) 963 4777 / 3816
Fax: (1) (212) 963 3515 / 1753
(Note: Guyana assumes chairmanship of the G-77 and China on July 1, midway through the Special Session)

European Union
Mission of Austria to the UN
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823 United Nations Plaza, 8th Floor
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E-mail: autun@undp.org
(Note: Germany assumes EU chairmanship in June)

JUSCANZ members
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Cairo+5 WEDO Notice Board

KEY DATES

FEBRUARY 6-7, 1999
NGO and Youth Forum at The Hague **(Deadline 12/1/98)**
Local Facilitator, World Population Foundation (WPF)
Amperestraat 10, 1221 GJ Hilversum, The Netherlands
Tel: (31) 35 642 2304; Fax: (31) 35 642 1462
E-mail: ngoforum@wpf.org; Website: www.wpf.org

FEBRUARY 8-12, 1999
International Forum of Government Representatives at The Hague

MARCH 1-19, 1999
UN Commission on the Status of Women Focus: Women and Health

MARCH 22-30, 1999
UN Commission on Population and Development/PrepCom for the General Assembly Special Session
Secretariat, United Nations Population Division
2 UN Plaza DC2-1950, New York, NY 10017, USA
Tel: (1) (212) 963 3179; Fax: (1) (212) 557 6416
Contact: Joseph Chamie, Director

JUNE 30-JULY 2, 1999 GENERAL ASSEMBLY SPECIAL SESSION

CRITERIA FOR NGO ACCESS TO THE CPD MARCH 22-30, 1999

All ECOSOC-accredited NGOs can attend. All NGOs who attended the ICPD and whose applications are in the pipeline for ECOSOC accreditation can attend. A decision is pending on other NGOs expressing interest in population and development issues who would like to attend. Applications must be made to: **NGO Section, UN Secretariat, 1 UN Plaza, UN DC1 Building, Room 14-82, New York, NY 10017. Fax: (1-212) 963-9248**

NEWS BULLETIN

The UNFPA *ICPD+5 News Bulletin* on activities relating to the five-year review is produced on the first Monday of every month. It features all the activities and events leading up to The Hague Forum, the UN Commission on Population and Development and GA Special Session. Contact: Jaya Dayal, UNFPA, 220 East 42nd Street New York, NY 10017, USA. Tel: (1) (212) 297 5028; Fax: (1) (212) 557 6416; E-mail: dayal@unfpa.org; Website: www. unfpa.org/icpd.htm

'98 MEETING REPORTS

TECHNICAL MEETINGS

Population and Aging 6-9 October, Brussels, Belgium; www.unfpa.org/icpd/icpd.htm. **International Migration and Development**, 29 June-3 July, The Hague. Website: www.unfpa.org/news/releases/migraissu.htm.

ROUNDTABLE MEETINGS

Participation with Civil Society 27-30 July, Dhaka, Bangladesh. Website: www.unfpa.org/icpd/meetings.htm
Reproductive Rights and Implementation of Reproductive Health Programmes, Women's Empowerment, Male Involvement and Human Rights 22-25 June, Kampala, Uganda. Check the UNFPA website for agenda, participants' list, news reports, and background documents. **Adolescent Sexual and Reproductive Health and Rights** 14-17 April, New York. Contact: Delia Barcelona, Roundtable Focal Point, Tel: (212) 297 5233; E-mail: barcelona@unfpa.org

REGIONAL COMMISSIONS

Africa 23-25 September, Addis Ababa, Ethiopia. Report includes necessary future actions. Contact ECA, P.O. Box 3001, Addis Ababa, Ethiopia Tel: (251-1) 51 72 00; Fax: (251-1) 51 44 16

Western Asia 22-25 September, Beirut, Lebanon. For the final declaration, contact ESCWA, P.O. Box No. 11-8575, Riad El-Solh Square, Beirut, Lebanon; Tel: (961)-1-981301/ 981311; Fax: (961)-1-981510/ 981511
Website: www. undp.org/popin regional/escwa/index.htm

Latin America and Caribbean 13-14 May, Aruba. For copies of an ECLAC Ad Hoc Committee on Population and Development resolution, "Population and Development: Preparations for the Regional Appraisal of the Implementation of the Programme of Action of the ICPD," and the draft report, adopted draft resolutions, and other related documents, contact: Tel: (56-2) 210-2000; Fax: (56-2) 208-0252; Websites: www.eclac. org/celade-Esp; www.undp.org/popin/eclac.

Asia and the Pacific 24-27 March, Bangkok, Thailand. For a document entitled "Key Future Actions Required to Achieve the Goals of the ICPD Programme of Action," the Bali Declaration, and related resolutions visit the new ESCAP Website: www.unescap.org/pop/icpd/icpd.htm

WEBSITES

www.un.org/womenwatch/daw/papers1.htm Site of UN Division for the Advancement of Women (DAW) has useful background papers from recent Expert Group Meeting on Women and Health.

hsph.harvard.edu/Organizations/healthnet Global Reproductive Health Forum (GRHF), a networking project about reproductive technologies, health and gender at Harvard School of Public Health.

www.hsph.harvard.edu/Organizations/healthnet/SAsia/repro/issue1.html
New online journal that disseminates the work of scholars, activists, and organizations exploring different aspects of reproductive rights and health in South Asia.

www.hivnet.ch:8000/gender-aids/tdm
Gender-based forum on HIV/AIDS.

www.cedpa.org Clearinghouse for information about the activities of U.S. NGOs in Support of the Cairo Consensus.

www.now.org/issues/abortion Reproductive rights issues in the U.S. at the website of the National Organization of Women.

Now available

A summary of *The 1998 Revision of the UN World Population Estimates and Projections* showing demographic trends, ageing, and the impact of AIDS in 34 countries. Contact: UN Population Division (see above).

The Budapest meeting 7-9 December 1998

The regional meeting of ECE-countries, European countries, USA and Canada, took place in Budapest in December 1998. Prior to the UN-meeting WEDO and its monitoring partners from eastern and western Europe exchanged information. The group gained access to the drafting committee and offered numerous suggestions to include: on sustainable development, gender equality, reproductive rights and services in particular to women, adolescents and migrants, as well as on the role and participation of NGOs, both in providing qualitative and quantitative information as well as in implementation of actions. Other NGOs present were invited to join the WEDO-group, which most of them did.

One suggestion, advocating a multi-sectoral approach to population and development issues in a framework of gender equality and sustainable development, was incorporated in its entirety in paragraph 8. Many other suggestions were taken seriously into account as well, for example this one:
(to paragraph 18)
'We would like to stress gender differentials in morbidity, which are the reversed of those observed in mortality. In all countries women start suffering chronic disabilities at a much earlier age and for a longer period of time than men. Increasing market economy, globalization and restructuring in health and social systems affect disproportionally women's health, particularly women's reproductive health as well as the elderly. These trends call for strengthening specific interventions from national state systems'

Gender issues and sexual health were included in the priority themes (paragraph 9). The problems of adolescents with respect to education and access of reproductive health services were acknowledged (paragraph 16) Also rising maternal mortality in transitional economies and the needs of migrants for reproductive health care (paragraph 17).
The role of NGOs was acknowledged (paragraph 16), they were included as partners in co-operation (paragraph 30) and as providers of qualitative and quantitative data (paragraph 32).

All in all, the ECE-conclusions proved to be the most advanced of all regional meetings, both with respect to women's rights and to sustainable development (pers. comm. Rosalud de la Rosa, WEDO). Yet, environmental links to health and reproductive health are not acknowledged and financial commitment of the considerable number of donor countries present has not been stated.
At the end of the meeting the joint NGOs produced a final statement, the 'Ten points of NGOs', which is included in this section.

Maureen Butter

TEN POINTS OF NGOs
TO THE REGIONAL POPULATION MEETING
7-9 December 1998, Budapest

We NGOs, would like to record our warm appreciation of the support and help we have received from the organisers in communicating our views and comments on the Draft Conclusions to members of the Drafting Committee. We are pleased that NGO input to the ECE meeting has been welcomed and that NGOs have found the interaction between Government delegations, ECE, UNFPA and Government of Hungary and each other a productive and positive experience. We look forward to building on this mutual collaboration at all stages of the review process of the ICPD Programme of Action leading up to the UN General Assembly Special Session in June 1999.

We also appreciate and welcome the opportunity of making points of priority and principle on the Draft Document, which reflect the priorities, principles and commitments of UN conferences in the last decade. These points reflect the debate which took place in the plenary sessions of the meeting.

We formally request that these points be included in the official record of the meeting.

1. We would like to stress that the transition to market economies, privatisation and other macro-economic policies in health and social systems has affected disproportionately women's health, including reproductive health, which is a major obstacle in achieving the goals of the Programme of Action of ICPD.
2. We feel that despite efforts in many ECE countries to improve status of women, there has been clear setbacks in women's rights, status and opportunities particularly in Eastern Europe. Social and cultural stereotypes behind reproductive health programmes are still oriented towards giving entire responsibility to women to make decisions in family planning, leaving them to bear negative consequences on their own. We would like to stress the importance of equal division of labour in care-giving, family responsibilities and household tasks between men and women.
3. We are concerned at the lack of emphasis on the sexual and reproductive health needs of adolescents and strongly urge, as stated in the Programme of Action of ICPD, governments and NGOs to meet these special needs and to establish education programmes and youth-friendly confidential services.
4. We are concerned at the lack of emphasis on reproductive health and its relationship to strong and long-term influence of reproduction and reproductive practices on the mortality and morbidity of women and children, as well the lack of emphasis on social and environmental risks in relation to reproductive health.

5. We are concerned at the omission of the sexual and reproductive health needs of migrants, returned migrants, refugees and displaced populations, especially when an increasing percentage of this population are women and we recommend special attention to sexual health in relation to trafficking of women.
6. We are deeply concerned at the lack of emphasis on environmental impact and risks to health and reproductive health of men and women, particularly the impact of man-made nuclear pollution. We strongly advocate financial support for ecological disaster areas.
7. We strongly urge governments to recognise the crucial importance of financial contributions of national governments and the European Commission to realise the implementation of the recommendations of the ICPD Programme of Action on a global scale in order to ensure access to sexual and reproductive ~~health~~ health services to all women and men who need them.
8. We believe that co-operation between countries with economies in transition and the rest of the region should be promoted and supported at all levels.
9. We recommend the development of integrated methods of monitoring quality of life, incorporating health, gender and environmental aspects.
10. We would like to recommend support to the development of structure of civil societies, particularly NGOs, as well as assistance to governments to organise, design and deliver reproductive health services and related information, education, communication and education.

Austrian Family Planning Association, Austria
Bulgarian Family Planning Association, Bulgaria
Family Planning Association of Albania, Albania
Federation for Women and Family Planning, Poland
German Foundation for World Population, Germany
International Planned Parenthood Federation European Network, UK
Italian Association for Women in Development, Italy
Latvian Association for Family Planning and Sexual Health, Latvia
NGO MAMA-86, Ukraine
Norwegian Association of Reproductive and Sexual Health, Norway
Population Concern, United Kingdom
ProFemina Association, Poland
Russia Family Planning Association, Russia
Spanish Interest Group on Population, Development and Reproductive Health
Swiss Family Planning Association, Switzerland
The Moscow Center for Gender Studies, Russia
Women's Alliance for Development, Bulgaria
Women in Europe for a Common Future, Netherlands
Women's Environment and Development Organisation, United States